

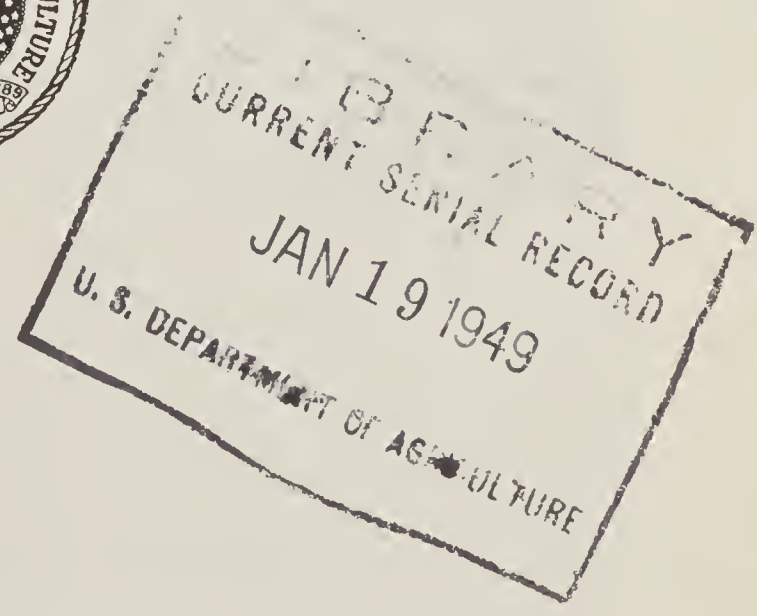
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REPORT OF
COOPERATIVE EXTENSION
WORK IN AGRICULTURE
AND HOME ECONOMICS
1948

Taking Science to Rural People



U. S. DEPARTMENT OF AGRICULTURE

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REPORT OF COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, 1948

Taking Science to Rural People

UNITED STATES DEPARTMENT OF AGRICULTURE,
EXTENSION SERVICE,
Washington, D. C., October 15, 1948.

HON. CHARLES F. BRANNAN,
Secretary of Agriculture.

DEAR MR. BRANNAN: I submit herewith the Annual Report of the Extension Service for the fiscal year ended June 30, 1948. Totals for activities and results are for the calendar year 1947.

Yours sincerely,

M. L. WILSON, *Director.*

SCIENCE, LOCALIZED AND APPLIED

Americans are the best-fed and best-clothed people in the world. This did not just happen. Back of our bread basket and fiber mart are millions of farm people who have learned how to produce and live as no other people have ever done. They have not been content with science in the laboratory. They have taken the results of the laboratory and applied them on their farms and in their homes. This has meant progress, and in times of trial a lifesaver, not only for themselves but for the Nation and the rest of the world.

It is in the field of taking science to farm people and demonstrating how to use its results in everyday farming and homemaking that the cooperative Extension Service has been playing and is continuing to play its role in the American scene.

Extension's job is to carry the full weight of science to the farm. Not only to carry it there, but to help the people apply it to field, home, and market place. This is education in its full practical sense.

Cooperative extension agents are located in every county of agricultural importance. They live among local people, out where the findings of science are finally put to work. Back of these agents, who make up three-fourths of Extension's technical staff, is a small group of extension subject-matter specialists and supervisors in each State agricultural college and at the Federal Extension office in the United States Department of Agriculture. The extension agents' effectiveness is magnified by nearly a million rural men, women, and older boys and girls, who serve as volunteer local leaders of extension work. These local leaders, who receive no pay for this work, give freely of their time and effort to help their neighbors and communities get the

benefits of science applied in everyday rural life. Last year the Extension Service sponsored more than 120,000 meetings to train these local leaders.

Four Out of Five Farms Reached

The extent to which Extension's practical educating has been accomplished can be measured; not in terms of what people learn, but by what they understand, want to do, and do. Last year four farm families out of every five in the Nation accepted and applied at least one or more new practices advocated by extension agents. More than 2 million nonfarm families saw the light of science through Extension and thus did some task better.

Extension agents during the year visited one out of every three farms and thus gave the most personal and practical kind of help possible. More than 8¾ million people came to the agents' offices for information and advice. The agents arranged more than 11,000 tours on which over a half million people saw some better farming and homemaking practice demonstrated in their neighborhood. Through nearly a million and a half meetings, 18 million publications, news stories, radio talks, circular letters, exhibits, and many other ways, they helped people to meet their local problems of better farming and homemaking.

Accent on the Family Approach

Extension's field is broad—as broad as the changing needs of the farm and the home. The farm family wants to know the best methods science has found. It is concerned with growing crops, putting gains on livestock, controlling bugs and pests, canning, feeding the family, and with many other problems. Most of all, the farm family has the problem of putting all available know-how together in a balanced-farming program that will make the best living for the family and produce the largest amount of things needed from the land.

Extension agents have learned that specialized science is not enough. The accent during the year was heavy on helping farmers to put together scientific findings that were locally applicable. Some call it over-all farm and home planning. Others call it farm and home management, balanced farming, and other names. It is through such a family approach that each specialized segment that follows in this report is brought together in a most practical way at the individual farm.

Changing Emphasis With Changing Problems

The year was a year of change of emphasis on extension programs, to meet the changed situations farm people faced. Early in the year the emergency Farm-Labor Program, turned over to Extension during the war by Congress, was concluded. Tremendous food needs in Europe and the rest of the world, together with high food and feed costs at home, greatly increased emphasis on immediate food and feed conservation on our farms and in our homes.

Helping farmers with their marketing problems received greatly increased attention. Many new marketing projects or area demonstrations were started. An expanded program of local consumer education was launched in several States. In the Research and Marketing Act of 1946, Congress provided for expanded marketing research, and

Extension began plans for taking the results quickly to the people in a locally usable form.

Farm areas joined the fight on juvenile delinquency after the Second World War. 4-H Club work with farm boys and girls, led by extension agents, had a positive program. Membership in 4-H Clubs reached a new high during the year.

Extension gave increased emphasis to family living, health, recreation, child care, advising veterans on farming and homemaking, and other aspects of better rural living.

Success of the Extension-led victory-garden program during the war and high food costs have brought increased calls for help from nonfarm people. There are now more rural nonfarm families than farm families in the Nation. These and many in the cities called upon extension agents for the latest findings of science to apply to their problems of home, garden, lawn, and consumer interest. Extension agents enlisted the help of local leaders in giving needed information to part-time farmers. Leaflets, news stories, and exhibits were some of the means used in reaching the people.

HARNESSING THE MACHINE

Extension engineers and county agents have led the machine to the farms of our Nation. As a result, fewer and fewer farmers continue to produce more and more. The American horn of plenty has been kept full, and running over at times, while hunger has stalked the earth at many places.

The coming of the machine to farms has been rapid in recent years. Perhaps the greatest change has been in the Southeast, where a plentiful labor supply lingered longer than elsewhere. The coming of the machine was feared there by thoughtful people. With so many people on the land, it was easy to imagine the social and economic consequences of much displaced labor. But labor was not thrown out of work. Inducements incident to war augmented migration from this area of heavy labor supply and left a void on the farms there. The machine filled this gap, and farming went on even better than before.

Thus, the machine has performed the happy function of replacing, not displacing, labor.

This same thing happened more or less all over the country. Extension was alive to this trend and helped in many ways to meet the change. Group teaching through farm-machinery schools was one of Extension's most popular approaches. Sixty-six such schools in Missouri were attended by 9,580 farmers. In Kansas, 8,800 farmers attended their county farm-machinery schools. Local dealers and machinery representatives usually helped with these.

The sugar-beet caravan in Colorado made 11 stops and was attended by 5,925 people, who saw the latest in methods.

The 20 demonstrations of grassland farming equipment in Wisconsin drew 100,000 farmers in 1946 and 1947.

In Indiana, 300 farmers visited a new corn dryer on 1 farm during the 8 days it was running. That scene was a common one over the Corn Belt. This is typical extension technique. Get a new machine or method to working; then invite or take folks to see it, and it largely speaks its own lesson to practical farmers.

Land reclamation is a live subject in many areas. In Kansas 39,300 farmers attended 522 meetings on the subject in 63 counties.

The new irrigation engineer in Georgia planned systems for 137 farms whereby 2,000 acres would be irrigated.

In Arkansas 2,676 new houses were built at a cash saving of \$2,057,000 through the use of plans furnished by the Extension Service. Each State has a similar service.

Plans for temporary silos were furnished farmers in Missouri as an aid to the food-conservation program. A total of 4,600 such silos were built there and filled with 415,000 tons of stored feed.

Mechanical pruning in California saved 25 to 50 percent of the labor.

4-H Boys and Girls Mechanize

Boys and girls through their 4-H Clubs, are taking the lead in general farm renovation with electricity, machinery, and improved methods. Forty-one State extension staffs trained 8,471 local leaders and over 50,000 4-H Club members in tractor maintenance and operation in the period 1945-47. During the year, 750 Georgia 4-H Club members gave 1,200 demonstrations in their better methods electric project. And Michigan had 2,500 boys engaged in this project.

Health and safety work was conducted in 34,000 communities by local leaders and extension workers.

These examples show the breadth of extension engineering work.

But one more thing about the machine: Men have wondered about its effect on the small farm. And it probably has hurt at spots. But, by and large, the machine is being bent to the small farm, too, by custom work. This is especially true with larger machines, county agents reported. For instance, comparatively few farmers in the Southeast own a combine. Yet most of the grain in that area is cut by combines on a custom basis. The agents have been instrumental in promoting and organizing much of this.

Irrigation is new to the same Southeast. Custom work in this field has already shown up in South Carolina. In the coast country there are many small farms of from 3 to 15 acres. The benefit of tractor preparation has come to many of these farms through group ownership, as organized by the Negro agents in Beaufort and Charleston Counties.

County agricultural and home demonstration agents, during the year, broke all records in helping farm families in the following numbers, with problems of housing and building improvement: 47,640, in building new houses; 108,166, in remodeling dwellings; 41,685, in installing sewerage systems; 49,699, in installing running water; 25,414, in installing heating systems; 240,249, in improving kitchens; 140,077, in obtaining electricity; and 254,203, in selecting electric equipment.

They helped farmers in the following numbers: 75,589, in erecting farm buildings, and 84,951, in remodeling them; 53,396, in selecting building equipment; 99,730, in selecting mechanical equipment for buildings, and 207,426, in using it; and 202,930, in equipment care and maintenance. Also, 5,716 cotton ginneries were assisted in improving gins and in their operation.

Extension helps farmers to help themselves.

GROWING TWO BLADES OF GRASS

Good seed and proper methods play a big part in meeting the Nation's needs for food and fiber. Seed improvement made rapid progress during the year. Thirty-nine States had seed-improvement organizations with a membership of 32,582 farmers participating in the program of reproducing best quality seeds of varied sorts for farm planting. This planting seed came from top-notch private plant breeders and public experiment stations, thus making improved seed available to the average farmer at moderate price.

Oregon provides an outstanding example of the development of seed growing. Under the leadership of the Extension Service, Oregon farmers in the past 25 years have built up grass and legume seed production to the point that in 1947 they harvested more than 355,000 acres of such seed, valued at over 22 million dollars.

County agents use demonstrations extensively over the country to teach the benefits of good seed. Farm tours to see these demonstrations at the right time, and to see the work of experiment stations and of private breeders, serve well in extending the use of better seed by the farmers of the country. County workers reported 11,264 tours conducted during the year in which 500,582 farm people participated. Though most of these tours were to show the results of better seed, a goodly number were to see better methods in home and field.

Improved methods of growing crops are also one of the means that extension workers use in helping to keep American agriculture in the forefront. Through improved methods and better seed, North Carolina set out to improve its corn yield a few years ago. As a result, the State yield has improved materially and members of the State's 100-bushel corn club increased by the score during the year. A similar awakening has occurred in many other States.

Outstanding cotton improvement has come in South Carolina since its State cotton-improvement contest was started by the Extension Service 20-odd years ago. Yield came up over 75 percent, and the percentage of staple of over 1 inch increased from 18.6, when the contest was started in 1928, to 99.1 percent of 1-inch or better staple in 1947.

Pasture improvement has grown into an active extension program in all parts of the country. Areas formerly given to clean culture and that knew grass only to fight it are now studying grass and catering to its whims as to soil, fertility, and moisture. In the Southeastern States it is "year-round grazing" or "June grazing in January" that is catching the ear. New England calls it the "green pasture program." The awakening to balanced farming in Missouri and many other States attests to the growing appreciation of grass and all that it implies.

Improved strains of wheat, oats, grain sorghum, soybeans, alfalfa, potatoes, cotton, corn, or other crops are promoted in every agricultural section of the Nation. Hybrid corn alone is credited with increasing yields about 25 percent, or enough to take care of exports and this country's growing need.

Seven Points on Growing Cotton

Extension is working strongly with cotton. Approximately 2 million of the farm people of this country depend largely upon cotton. White and Negro agents both, in the South, devote a lot of time to this crop. Their efforts are unified behind the seven-point cotton program, which is, briefly to—

1. Fit cotton into balanced farming.
2. Take care of your soil.
3. Get together on the best variety.
4. Make your labor count.
5. Control insects and diseases.
6. Pick and gin for high quality.
7. Grow to sell for grade, staple, and variety value.

Marked progress is being made in all these steps. The two cotton-gin specialists of the Federal Extension Service and the seven State gin specialists were able to visit 2,000 of the country's 8,600 gins with county agents personally during the year and to assist in making improvements that were reflected in better ginning and more money in the growers' pockets.

The cotton area was once plagued with several hundreds of so-called varieties. Through the far-reaching one-variety community program, at least 90 percent of the crop is estimated to be planted to about four varieties found best suited to different parts of the belt, and 45 percent is grown in one-variety communities. Seed treatment for the prevention of seed-borne diseases of cotton now applies to 80 percent of the crop. This work from the beginning has been spearheaded by Extension.

Another outstanding instance of rescuing a faltering major crop is in connection with Clinton oats in the Corn Belt.

From Test Tube to Elevator

A disease, *Helminthosporium*, was making fearful inroads on the oat crop. Plant breeders of the United States Department of Agriculture and the Iowa Agricultural Experiment Station, in 1943, came forward with 25 pounds of seed of a new oat they had produced that was resistant to this dreaded disease. To hasten the process, the seed was sent to Arizona, where during the winter of 1943-44 it produced 66 bushels. This was taken to Aberdeen, Idaho, and in 1944 was increased to 1,208 bushels. The seed was then returned to the Iowa Experiment Station at Ames, and 200 bushels were dealt out to the State extension agronomist in Illinois and 200 bushels to the extension agronomist in Indiana. The remainder was retained in Iowa.

In 1945 the seed was multiplied by selected farmers in these States, and that fall small amounts of the seed were furnished the Nebraska and Ohio Experiment Stations.

In 1946 a total of 1,585,676 bushels of Clinton oat seed was certified. In 1947 a total of 13,161,372 bushels of certified Clinton oat seed was available for planting, all from the 25 pounds the breeders had turned over to agriculture just 4 years before. How this was done is a long story of persistent work. In Illinois, alone, the extension agronomist and the county agents in 71 counties put out 10 bushels of the precious

seed to each of 1,100 farmers and supervised them closely for certification. Now about 90 percent of the oat crop in the Corn Belt is planted with this disease-resistant seed.

Thus the weight of science through the plant breeder finds its way to the field in a hurry through Extension's on-the-spot organization. And this very thing is happening constantly in every field of farm activity and homemaking. So much is this so, that it is not unusual for county and home agents, in visiting farms, to be greeted with, "Well, what new have you to tell us today?"

A similar story could be told on the development of Rescue wheat, which is resistant to the sawfly.

BALANCING THE FARM BUSINESS

Extension economists and farm-management specialists have a constant job, through county and home agents, of keeping farmers posted on economic matters that affect agriculture. And they spearhead planning and management studies designed to meet the planning and management problems inherent in modern farm and home life.

All this is tempered with the seasoned and practical judgment of farm people through local committees and is worked into community, county, State, and sometimes regional, plans for the betterment of agriculture.

In Missouri they call this organized effort "balanced farming." In other areas the same thing goes by other names. But let us look at Missouri's balanced-farming approach.

It grew out of soil conservation work, as first reported in the 1915 annual report of the Carroll County agricultural agent. The report told of the first terraces ever built west of the Mississippi River in Combs Township. Through the years the program grew, emphasizing good rotations, fertilizers, and terracing. In 1935 a Civilian Conservation Corps camp came to the county and aided mostly in cleaning out drainage canals and ditches. Three years later this was replaced by a Soil Conservation Service camp which did intensive conservation work on 55 farms. War came. This camp was discontinued, but the farmers still wanted more and more help on conservation.

By the winter of 1941-42 the college of agriculture had brought together plans for a balanced-farming program that communities might work out with the assistance of their local county extension workers, and in cooperation with their other agency workers. Miller Carpenter, Carroll County agricultural agent, was one of the first to become interested, and he and the farm-management specialist went to Kansas to study a similar plan that had been working there for several years.

The plan adopted, after conferring with farmers and the college, was one for intensive farm and home betterment, to be worked out with a group of 50 farmers who would put up \$50 each to assist in employing an extension agent, who would concentrate on helping these farmers in carrying out their long-time plans.

"Results so far are encouraging," according to County Agent Carpenter. Five-sixths of all the terraces in the county have been built since this awakening started. The use of lime on cooperating farms has been upped over three times what it had been. Clover turned

under has almost tripled since this planning started. Crop production about doubled, not so much from increased acres as from the benefits of rotation and other soil-building practices used. Improved poultry practices have increased egg production per hen almost 65 percent. Similar improvement applies to orchards, hogs, sheep raising, gardens, home improvement, and other features in the plans.

Balanced farming has increased the total effectiveness of the extension program more than the one or two additional workers would indicate. Each of the farms demonstrates improved practices to all farmers of the county.

Balanced farming has grown in Missouri until there are 32 such groups in operation, each made up of 50 farm families. These groups are among the 15,000 families there that have a farming program balanced to their needs. Balanced-farming clinics were held in 108 of the 114 Missouri counties. Kansas and North Carolina organized balanced-farming communities. And 38 State extension services sent groups to Missouri to study the plan. Tennessee called theirs "the balanced farming program." They boiled the program down to 10 points, stressing mainly fall cover crops, pastures, hay, and erosion control.

Extension hammers at old problems with new techniques and tools. Intelligence is applied, science is put to work, and farm folks are made more secure.

State extension offices were relied on heavily for technical information and methods for use in the veteran-training program. In Ohio, 8 all-day farm-management schools were held for 249 instructors, who reached 6,000 veterans. Missouri held 13 balanced-farming schools for 455 veteran instructors, who reached 10,000 veterans.

Outlook and program-planning meetings were held in every county of most States, as is the annual custom. In Colorado, such meetings, including farm-account meetings, were held in 9 counties for young farmers. Indiana held 260 outlook meetings with 33,720 in attendance.

All States furnished general extension farm record books. Illinois distributed 50,000 of these books. During recent years over 50,000 farmers in Ohio have been trained to keep needed records. In California, extensive farm-enterprise management studies are made annually through the county agents by the farm-management specialists. These are for the purpose of helping local growers to improve management and increase their profits.

Meetings, radio, and the press all were used widely by extension workers in all States to keep farm people informed on matters of public policy and regarding governmental aids available for use in handling their problems.

Studies Show the Way

Studies designed to point the way to improving the lot of the share cropper and the landowner in the South were made at several places. In Edgecombe County, N. C., plantation owners and share croppers worked with the assistant county agent and assistant home agent assigned to this task. Leaders there hope to develop procedures with which to attack the problems of landlords and tenants in other parts

of the State. Gratifying results in the form of increased production and better living were noted there as a result of this experiment in extension methods.

In South Carolina the agents reported a study of 122 demonstrations in landlord-tenant relationships. These represent the more successful cases of landlord-tenant arrangements that have been mutually beneficial. Results are being summarized and made practical for general use as a guide to others in improving such relations.

Wage agreements and lease forms were studied in the States, and sample forms furnished to interested farm people. The use of agricultural credit was discussed with farm groups, and land utilization was a subject of extension study and recommendation in all areas.

HANDLING TREES AS A CROP

In recent years, the voices of the conservationist and the forester have found more and more attentive ears. Most States have established nurseries for the production of forest seedlings, and increasing numbers of farmers have planted some. When a man plants a tree, he is a changed man from then on. He begins to see fire and ruinous cutting as menaces to his own welfare and to the timber supply of the future. This simple change of attitude heads our country into an era of conservation and good forestry practices as compared with the ruinous and wasteful path we see leading back to the past.

Through the extension foresters' working with county agents and cooperating with State and national forestry services, Extension is proud of the work it has been able to contribute to good forestry. And the future holds great promise, as we progress further from the time of forest exploitation to that of planned management and selective harvesting.

Extension touches this important matter at many places. It is part of the 4-H Club program that teaches close to 2 million farm boys and girls the importance of trees and how to promote and conserve them.

To improve the sawmilling methods of small operators who cut chiefly from the farm wood lot, the Iowa Extension Service conducted a sawmill school that embraced selective cutting and full utilization of trees taken out. In Illinois, a short course in lumber grading was conducted for a week. In Ohio the aim was to leave about 20 percent of farm areas in timber to supply continuous farm needs.

Harvesting Pay for the Farmer

The State-owned timber-harvest areas developed by the extension forester in Wisconsin show that, in harvesting a timber crop, a farmer can earn from \$1 to over \$2 an hour above the value of the stumpage. The trees planted as farm windbreaks in Montana, Idaho, and eastern Washington, add materially to the value of farms. These have grown from demonstrations established some years ago by extension foresters.

Extension plays an important part in forest-fire control. In California the extension forester reached 15,000 boys and girls with first-hand information on identifying fire hazards, how to remove them, how to report fires, and simple methods of preventing and controlling fires.

Much of the pulpwood business has moved to the Southeast in recent years. There Extension works toward proper cutting so as to insure a continuous harvest.

In New Hampshire, 395 result demonstrations in forestry have been established in recent years. These will serve as examples in a widespread forestry-management promotion campaign.

County Agent J. E. Dodson, of Brunswick County, N. C., reports that a 2.75-acre tract begun in 1920 was allowed to come up to pine trees. Nothing was done to it, except that fire was kept out. In 1937 the tract was thinned and yielded \$20.40 an acre. Then, in 1944, it was thinned again and the pulpwood brought \$31.50 an acre. In 1947 the owner decided to put the tract back into cultivation and it was cut clean, yielding \$109.09 an acre, or a total of \$160.99 in 25 years to trees. This was an average of \$6.44 an acre each year from land that was worth about \$10 an acre when it was allowed to grow trees.

A Maine Farmer Reports

A Maine farmer wrote his extension forester:

Perhaps you will remember when you were here a few years ago and showed me how to use the international cruising stick. It has paid dividends. The best offer I could get for all my standing timber was \$1,500. I cruised, and estimated a week or two, and saw that I was taking a licking at that price. After a while I got in touch with a man operating a sawmill, who would buy by the cord and by 1,000 board feet. We have already cut nearly \$2,000 worth of stumpage and there is at least one-half as much more in sight. That will figure up to exactly what I wanted for the farm, woodland and all, and I still have the farm. Recently I cruised a stand of pine that estimated 44,000 feet. It sawed 46,000 feet. Also cruised a clump of hemlock at 21,000 feet and it sawed 20,000. It was shaky, but there are still 7 cords of hemlock pulp in addition to the lumber.

Similar instances of teaching farm folks to help themselves could be repeated many times from extension workers' experiences.

The new portable sawmills that can afford to stop at a farm where only a thousand or so feet of lumber is to be cut have added practical value to the farm wood lot. Every farm needs repair lumber regularly. But in the past these small bits from the local woods have been hard to get because of prevailing logging and sawing arrangements that were impractical. These sawmills also serve to bring slabs and trimmings in small volume at a time when they can be profitably used for firewood and other purposes before they rot.

ELECTRICITY LIGHTENS THE LOAD

Twenty-two States employ 27 extension rural electrification specialists, with headquarters at the State office, who work with farm people through their local county and home demonstration agents. In 20 other States, at least one member of the engineering staff gives most of his time to this subject.

These specialists work mainly with farmers and farm groups in getting together to obtain electric service, and then advise them about wiring, and getting, servicing, and maintaining electric equipment. Of about half a million farms that obtained electricity during the year, extension workers assisted 140,077.

Experience has shown that many rural customers, in the name of economy, have wired their houses in a manner that has proved inadequate for later loads. Extension not only has guided many away from making this mistake in the past, but did so particularly during the year. Nebraska reported folks asking for all the help they could get.

County extension agents are trained by extension specialists, and by those of electric companies and cooperatives, to be helpful to farm people in working out all common electrical problems. Many schools have been held with farm groups and 4-H Clubs on selecting, maintaining, and repairing electrical equipment.

Oklahoma reported something that happened generally when it stated "Interest in running water and sewage-disposal systems has been increased with the growth of rural electrification." County extension agents assisted 49,699 and 41,685 farm families, respectively, in making these two improvements in 1947. And this aid was extended to over 2,200 of the Nation's 3,069 counties.

The report from Georgia was typical. In 1947 the agents there assisted 7,298 farm families in obtaining electricity and 6,602 in selecting equipment, and aided 3,104 families in using electricity to improve their incomes.

Virginia says:

The electric-service organizations operating in Virginia have in their employ some 32 agricultural- and rural-service engineers and some 25 home economists. Much time has been devoted to the preparation of educational literature and conducting training activities to make more effective the cooperation of these people in carrying out the extension project.

FRUITS AND VEGETABLES TO THE FORE

During the year, 151 extension specialists in horticulture were at work in the States, Hawaii, and Puerto Rico. These men, through the county and home agents in practically all agricultural counties, dealt with the broad general field of agricultural production, home and community beautification, and improved nutrition and better health.

Extension gave vigorous country-wide support to the victory-garden movement of 1947. Late in the year the world food situation, and the part our country seemed destined to play in it, caused Extension to help plan and carry out the Freedom Garden campaign for 1948. The price of food, the general world need for it, and the effort put behind gardening engendered more interest during the Freedom Garden campaign than had been shown at any time since 1944, reports show. Results of the campaign helped greatly in keeping many family food budgets down by assuring abundance of garden products in the food bins of the Nation and thus releasing vast commercial food stocks for export.

The extension office in Marion County, Ind., cooperated in a city garden project through the schools by furnishing publications and other timely information, and by judging exhibits. In 17 schools, 1,908 families were enrolled, and results were good.

County Agent J. F. Combs, of Beaumont, Tex., conducted his garden program through a widely read daily column in the local press. In addition, he answered many inquiries—as many as 28 letters in one mail—that came to him asking for special information.

Growing More at Lower Cost

Extension specialists in horticulture also carry on work with the commercial vegetable producers of the Nation. This has to do with the introduction of new crops and varieties, fertilization materials and methods, weed control, irrigation, marketing, and cultural practices. Short cuts to save labor are sought and applied and the machine is bent to the trucker's use, to the end that greater yields of quality vegetables may be produced at lower cost.

Assisting farm folks in planning and beautifying their grounds reached an all-time high during the year. The Second World War was over, and more farm people had the means with which to carry out their plans. Many rural churches, schools, and public buildings had their grounds beautified through the aid of Extension.

Over \$20,000 was contributed by the 4-H Clubs of Iowa, Minnesota, Wisconsin, Michigan, Vermont, Arkansas, Connecticut, Louisiana, and Virginia to the 4-H good-will garden-seed programs. Counties in many other States contributed, but no State totals were obtained. This money bought family-size packages of seeds that were sent through the Church World Service, Inc., to needy families in Europe.

Horticultural work is always prominent in 4-H Club activities over the country. It reached a high during the war years, and was still maintained at a high point in 1947.

National contests in gardening and home beautification were conducted, and 4-H members in most of the States participated. Among the winners in the annual production, marketing, and demonstration contest of the National Junior Vegetable Growers' Association were 83 4-H Club members.

Leaders indicated that the greatest handicap in extension horticultural work with young people through the 4-H Clubs was lack of leadership. The agents, recognizing this, gave more time to the training of such leaders.

There were all sorts of ways of getting this job done, as is true of all extension jobs. Helps were sent out from the United States Department of Agriculture and from State offices. But it was largely up to the seasoned ingenuity of local agents to work out with their people just how they would go about getting desired results.

BETWEEN PRODUCER AND CONSUMER

Extension realizes that intelligent marketing means more than just selling. It starts with a study of all factors, including soil and human resources, crop adaptations, competing areas, and just how production from a prospective area will fit into the market needs for a given product.

All too often the subject of marketing is not considered in its broad aspects, but no individual or agency can hope to produce and market a product profitably if some of these important considerations are not taken into account. For instance, farmers in an area get the idea that they want to grow tomatoes, and do. But when the tomatoes are ready for market, they wake up to the fact that older and more efficient producing areas nearer the markets have the advantage, and

successful marketing in the new area calls for magic that human beings do not possess.

So Extension's approach to marketing is on that broader plane that includes more of the elements that lead toward final success. Specialists and agents sit down with groups of producers and try to answer these questions: Does this crop fit into our farming system? Can we grow it? Do we fit into a fairly favorable marketing-time niche? Is there room for more of our crop in the markets we will aim at, local or distant? All available information is used in getting the best possible answers to these and similar questions before a beginning is made on what constitutes a good marketing job in all its ramifications.

Meeting the Market Need

Here is the way this worked in practice under the extension approach. In one community in Union County, S. C., Negro farmers were hard hit by the boll weevil. Their lands were rugged and slow to start growth in the spring. This was just to the boll weevil's liking. So these farmers were desperately in need of a supplementary money crop. Their agent, who is now State leader of Negro extension work in South Carolina, got them together, and called in the extension marketing and horticultural specialists to help find a crop suited to their soils and market outlets. Some sandy land, right for sweetpotatoes, was found on most of the farms. That part of the State produced few if any commercial sweetpotatoes. And it is near a large industrial section whose workers like sweetpotatoes. The farmers had the need, the soil, and the outlet. All they needed was the technical know-how.

All of them had been growing a patch of sweetpotatoes of sorts for home use. But it was quite another thing to start growing something for market, they were told. So they promptly forgot what they thought they knew about growing and handling sweetpotatoes. And from there on their county agent, with the help of the specialists, supplied the know-how.

Good seed was procured, lands were selected and plant beds put out, the right fertilizer was lined up, proper planting distances and cultural practices used, harvesting, grading, packing, storing, all were done properly. Loans were obtained and community curing houses built.

And now these farmers are in the clear. Sweetpotatoes are a valued money crop there, and the chief of the State extension division of markets says that the potatoes shipped by this group are the sort inspectors like to handle.

This illustrates the extension approach to new crops and marketing, for surely successful marketing starts at the beginning of a crop.

Extension in every area was constantly wrestling with varied marketing problems. In Lubbock County, Tex., and 10 other counties in that area, it was a seasonal surplus of eggs that county extension workers got together to sell on grade. Such a program had already been put in operation in the Denton area and in Milam County. In Worcester and other Massachusetts counties it was a rather complicated milk-marketing situation that the agent had to assist in working out. Livestock marketing received much attention in Ohio, and lamb production and marketing pools served the growers at 16 points in

that State. Clinton County was first to start this program, and during the year over 70,000 lambs were handled on the basis of this broader concept of marketing.

And so the story goes in practically every State.

Projects Approved in 31 States

Under the Research and Marketing Act, 54 extension projects in 31 States were approved during the year. These projects will greatly augment extension marketing efforts. They deal principally with demonstrations of improved marketing practices and methods, and serve farmers with market and consumer information.

To guide this new work in marketing, to the end that those served might get the most out of it, an extension marketing committee was appointed, consisting of two State extension directors, two marketing specialists, and one home economist.

Some of the projects now under way are regional in nature, while others are more localized, as indicated by the few examples that follow:

Market information for consumers in the metropolitan New York area on plentiful items is a regional undertaking, headed by Cornell University.

A project having to do with the identification of cotton from the time it leaves the gin until the bale reaches the cotton mill is under way in Missouri, New Mexico, Arkansas, and Georgia under Extension guidance.

Two area meetings in North Dakota and 25 in Maine explained the potato program, which embraces better handling and grading and proper disposal of the off grades. In North Dakota, it has been found that culls can be spread on the ground, where they freeze and keep for the cattle to eat during the winter. In California they are spread on abandoned air strips, where they dry to a crisp and are ground into cattle feed.

The Florida project has to do with displays and demonstrations to show recommended practices for proper care and handling of fruits and vegetables for shipment and for retail display and sale. In Hawaii, two air lines, three container manufacturers, and two farmer cooperatives are working with Extension in trying out new containers for shipping lettuce.

Alabama has a project under way designed to improve the harvest, preparation, and marketing of crimson clover seed, blue lupine, and caly pea seed.

Wisconsin is working on additional outlets for dry milk. The plan there includes demonstrations on its use at institutions, industrial plants, and tourist centers. In Missouri, a milk project is directed toward the production of quality milk. Improved handling of milk and cream is the purpose of the project in New Mexico.

The Minnesota Extension Service has a project under way designed to improve the production and handling of eggs, all the way from the farm to the home where they are consumed. And in Wisconsin, 29 stores in four cities are cooperating in a study to demonstrate egg sales under improved practices as compared with sales under the old practices. Florida, too, is developing an egg-improvement project

The latest way to dress poultry is being demonstrated in Delaware, and a consumer-preference study made of results.

Utah is developing a livestock-marketing project. Livestock tours and grading demonstrations in Virginia were attended by over 2,700 people. New Mexico is working on its four-point wool program—teach quality, improve handling practices, acquaint ranchers with market opportunities, and acquaint buyers with available wool grades.

Consumer education was started in six States and authorized in three others. In Connecticut, it embodied expanding the outlet for apples, which were in surplus. The work done is reported to have helped that situation considerably. Maryland arranged for 250 Baltimore stores to carry displays featuring plentiful fruits and vegetables. Results have been pleasing to both merchant and consumer, and naturally to the producer.

In Indiana, the project emphasizes gathering usable market information and distributing it to producers, dealers, truckers, and retailers.

And so the projects develop that Extension is sponsoring under the Research and Marketing Act.

MEAT ON THE HOOF

Meat available per capita was just slightly lower than for 1945 and 1946. The feed shortage and absence of imports from Mexico, because of the foot-and-mouth disease quarantine, largely accounted for this.

Extension livestock specialists and county agents received and handled more calls from farmers than usual. With scarce feeds and relatively high livestock prices prevailing, farmers were receptive to teachings of better methods of handling and the most efficient feeding of livestock, as taught by their extension agents. Less grain was fed and more grass and other roughages were used in producing the year's livestock in the Nation. This proved to be the economical thing and left much needed grain for export.

Approximately one-tenth of all the meat animals produced in this country found direct use on the farms. In this field extension specialists and county and home agents were called upon for varied help. Meat cutting and curing demonstrations reached thousands of farm families. In late years these have included preparation of meats for freezing and schools for freezer-locker plant operators.

Family budgets were worked out, including meat and other food needs for the entire family. In Georgia the slogan was "One 600-pound calf and three 200-pound hogs per family." 4-H pork clubs that started with weaned pigs and wound up with an auction of cured prize-winning hams were conducted in Mississippi, Georgia, Alabama, and West Virginia. In West Virginia, 60 hams and bacons from district shows competed in the State contest. GI trainers were instructed in Wisconsin, Louisiana, and other States to carry meat-preservation information to their veteran trainees.

It was 33 years ago that O. S. Oneal, Negro agent at Fort Valley, Ga., saw the need for a better diet for his people, and he organized the now famous ham-and-egg show among Negro farmers. That undertaking has thrived, and in 1947 over 1,000 pieces of home-cured

meat were exhibited at the show. Twelve other Georgia counties followed this extension effort to help Negro farmers grow their own food. The same type of program has been started in most of the other Southern States.

Extension courses in locker-plant construction, operation, and management were conducted and repeated in Kansas, Ohio, North Carolina, Texas, Louisiana, and other States.

As usual, better sires were promoted in all livestock endeavor, and the result was a gradual grading up of the herds of the Nation. The back of many a county agent's car is filled with livestock items such as dehorner, dips, sprayers, and models that he uses in frequent demonstrations on farm and ranch.

MORE MILK FROM BETTER COWS

Dairy extension work is largely based on the long-time dairy program, as worked out several years ago by the United States Department of Agriculture, the dairy industry, and the State agricultural extension services. It centers on greater and more efficient production of milk, and for 1947 gave special emphasis to hay, pasture, and other roughages, to meet the need for saving grain. In furtherance of the special 1947 objectives, 30,000 copies of the leaflet, *How To Make Up an Economical Dairy Ration*, 100,000 copies of *Save Grain With Better Hay Crops*, and 50,000 copies of *Economical Dairy Ration Saves Feed* were used over the country. Also, 175,000 copies of posters about grain saving and 175,000 posters about pasture were used.

Aid was given to 372,000 farmers in 2,400 counties in controlling parasites on their cattle.

The green-pasture contest in New Hampshire attracted interest. Grassland days were held in many States, and forage schools in others. Both attracted large and interested crowds of farmers.

In North Carolina, demonstration pastures of Ladino clover and orchard grass dot every county from the mountains to the seashore, and green fields for winter grazing are becoming common. Farm tours to see these and similar demonstrations at other places in the Southeast, aided in fast bringing this possibility of winter grazing into reality in that area.

Dairy herd-improvement association work reached its all-time peak during the year. A total of 45 States had 1,668 active associations in operation, testing 886,129 cows for 33,274 members under this extension project. It is rather significant that the States doing the most dairy herd-improvement association work turn out to be the ones with the highest average milk-production records.

As a means of rapid improvement of cattle, Extension has taken the leading role in the promotion of artificial breeding associations. Since the first of these associations was formed in New Jersey 10 years ago, 40 States have adopted this method of breeding. There are now 963 of these associations with 224,493 dairymen as members and serving 1,743,327 cows. And the method is growing in use daily. What this service from better bulls will mean to general dairy-cattle improvement in the years ahead is interesting to contemplate. And what it means

to dairymen in not having to keep troublesome and expensive bulls on every farm is no small item either.

Help was given to Alaska dairy farmers in getting an artificial-insemination ring organized. Arrangements were made between the association and the Beltsville Research Center, of the United States Department of Agriculture, for four young bulls from record-proved herds to be shipped to the Territory. This marks another step forward in the dairy program of this area.

But artificial breeding is just in its infancy. It reached 4.7 percent of the dairy cattle during the year. Extension dairymen and county agents assisted 45,000 dairymen in procuring purebred bulls and good cows.

4-H dairy club work continued to grow during 1947, with 114,007 members who had 130,092 animals. Club members learned regularity, patience, and perseverance in raising, training, and showing their animals—all important traits for the prospective dairyman to have.

TOMORROW'S POULTRY AND EGGS

Realizing the need, Extension increased its staff of poultry specialists in both the production and marketing fields.

Because of the high price of feed, poultrymen called for much information and advice. Much culling was done, and better quality chicks were in good demand as future producers.

Extension workers cooperated in the grain-conservation program by advising poultry keepers about how they could save grain in their feeding and management practices.

Extension specialists continued to assist with the National poultry Improvement Plan.

One of the large food chains was not satisfied with the quality and appearance of the poultry meat it was able to get. So it offered substantial prizes in a poultry-improvement effort known as the Chicken-of-Tomorrow contest. Extension cooperated in this program from the beginning, and poultry specialists in 44 States were active in organizing it in their States. The grower, hatcheryman, feed dealer, produce buyer, and the retailer all took part in making this undertaking an unqualified success.

In the past, most attention had been paid to the production of good layers, with little thought being given to poultry meat. This contest aimed at producing a superior carcass in the shortest time. And leading breeders in all parts of the country bent their efforts toward that goal.

During the year, 38 States held Chicken-of-Tomorrow dressed-poultry contests. And the national contest, wherein each breeder's eggs were hatched and broilers grown under identical conditions, marked the first great milestone of progress since this poultry meat-improvement work started.

Turkeys have been most efficient users of grain in making meat. But some batches of these new meat-type chickens are furnishing the turkey with stiff competition in this respect.

Many farms keep some chickens, and they are important sources of home-produced food. And farm folks called upon extension workers for all sorts of helps with their farm flocks.

General turkey improvement, as worked out by the experiment stations and breeders, was carried to the farms by extension poultrymen through county and home agents. A number of the States also had poultry specialists who worked entirely with turkeys.

Work is being done toward popularizing the use of turkey meat. In the past it has been mostly a seasonal food used around Thanksgiving and Christmas. But with more efficiency in the production of turkeys, the need has arisen for making turkey meat more nearly an everyday meat on sale in the market places and used in the home.

To facilitate this, smaller meaty turkeys are being bred, larger ones are sold in halves and quarters, and turkey steaks are making their appearance.

THE INSECT AND DISEASE FRONT

Calls for help received at the county extension offices are quick and sure indications of livestock and plant-disease and insect prevalence in the various counties. With the help of the specialists, county workers become adept in the field of insect and disease prevention and control. Hardly a day passes that some bug or diseased specimen is not brought to the county agent for identification and advice about its economic importance and control. This often enables a prompt fight to be staged against intruders, and the trouble spot cleared up before the insect or disease can spread and cause greater damage.

These calls on the agent often mean that he in turn must add to the large number of visits he makes during the year by visiting the farms concerned.

But the necessary handling of these many calls is not Extension's main work in controlling livestock, plant, and household insects and diseases. For prevention—planned prevention—is the main line of attack.

This takes many forms. Some are field demonstrations of resistant strains, others are seed-treatment demonstrations, conducting warning services, working with manufacturers and dealers on sprays and dusts, and on equipment for applying them. Experiment-station workers and extension specialists try to find out the best procedures and products, and county workers carry these to the field.

Spraying and dusting schedules are made out by cooperating authorities at the agricultural college and furnished to county workers as guides. The United States Weather Bureau furnishes many agents with 3-day forecasts that are proving increasingly beneficial to growers in timing their operations. Many county agents get these out to their growers regularly at fixed times over radio and through the press, and many producers telephone the agent's office for them.

Custom spraying and dusting served to make the best in equipment available to many growers over the country who could not otherwise have had access to it. Use of the aeroplane for dusting is growing more and more common.

Ring rot in potatoes was largely controlled in Colorado, Nebraska, California, and other States through demonstrating the value of clean seed. Growers were helped in producing certified seed that was free of this dreaded disease. In Colorado, ring rot was reduced from 33 percent loss a few years ago to less than 1 percent during 1947-48. Other States in the West also report progress.

About 10 years ago, county agents throughout the South were putting on cottonseed-treating demonstrations in most communities. Results were so good that the practice became general, which means that in that area millions of dollars have been spent for better stands of healthier cotton which give consequent better yields.

Treating sugar beet seed in Colorado, as promoted by Extension since 1937, was estimated to have increased the crop by 220,000 tons valued at \$1,500,000. Custom outfits treating grain seed in Kansas increased from 447, in 1946, to 844, in 1947, and 75 new home-treating outfits were made in one county. Seed treating of sorghum seed in Kansas became general and added an estimated 5,708,000 bushels to the year's crop. In Nebraska, a wheat seed-treating campaign was put on, and losses from smut dropped from 3 to 4 percent to 0.8 percent in 1947.

The plant-disease warning service established in 1946 was continued in the eastern part of the country in 1947. Local extension workers used it effectively as a basis for advising farmers on spraying and dusting crops such as cucumbers, melons, potatoes, and tomatoes for blights and mildews.

A Fast-Growing Science

The science of insect and disease control is a fast-growing one. New materials and methods by the dozen are being developed. Disease and insect men have to be on their intellectual toes to keep up with what is best. Their offices usually resemble the apothecary shop of old, and their cars smell of sprays and dusts. Over 75 basic insecticides alone go into countless formulas that these practical extension men of the field must know about. And the same goes for fungicides.

Colorado reported a saving in livestock of \$3,392,000 as the result of parasite control. An insect-control program in Alabama netted an estimated saving of \$17,045,768 in 1947.

Campaigns were waged in every State to control stored-grain insects. Kansas workers estimated that 50,000,000 bushels of grain were fumigated by farmers during the year. There 15,144 farmers fumigated their wheat.

Drives against the European corn borer and the cotton boll weevil during the year were the most intensive and widespread ever conducted.

Living was made more pleasant for people and health better throughout rural America through widespread use of DDT against flies and mosquitoes, to say nothing of the benefits from its use on animals and poultry.

SAVING SOIL AND WATER

Soil building and soil saving have been parts of Extension's creed and work for a third of a century. County agents have always emphasized the importance of growing soil-improvement crops and adding lime and other needed amendments to the soil. This work over the years has laid a sound cornerstone for expanded soil and water conservation programs of today.

County agents aided in setting up soil conservation districts in most agricultural areas and worked with technicians of the Soil Con-

ervation Service, who have greatly augmented the efforts toward soil building, soil saving, and land use.

Extension reports show that county agents assisted 623,627 farmers in 1947 in the planning and operation of their soil conservation district work. State extension soil conservationists and regional workers assigned to this field assisted during the year in correlating the work of Extension and the Soil Conservation Service in the field. During the year 48 extension conservationists and assistants were employed in 38 States and Puerto Rico, and three regional men covered the country.

County extension agents increased the time spent on soil-saving and soil-building work from 78,364 days, in 1946, to 81,235 in 1947. They participated in 32,067 meetings with Production and Marketing Administration and Soil Conservation Service workers.

In South Dakota, six new soil conservation districts were organized and additions made to two old districts during the year. In all, 3,186,328 acres were put into districts, making a total to date of 21,174,461 acres of farm land. Two-thirds of the farmers in the State now live within the boundaries of soil conservation districts.

Putting land to its proper use is a basic factor in conserving soil and raising needed food and fiber. Extension workers helped more than half a million farmers to treat their land according to its needs and use it in keeping with its capabilities.

Soil and water conservation forms an important part of youth training in the 4-H Clubs, 147,567 members having received training in this subject in 1947. The public schools in many rural areas are interested in teaching fundamentals of soil and water conservation. The Extension Service has been active in providing information needed in this teaching program. Bulletins on soil conservation, written especially for young readers, have been developed and distributed by the Wisconsin Extension Service in cooperation with the State soil conservation committee and public-school authorities.

MANPOWER TO DO THE JOB

The emergency Farm-Labor Program was one of many war jobs given to Extension. Extension immediately took over the program, grappled with it, didn't use all the money appropriated, and came up with success. At the end of 1947 the program was terminated, having been started in May 1943.

The problem was to get more and more work done in an expanded wartime agriculture with less and less available manpower. That seeming paradox was accomplished through a vast job-training program, multiplied uses of machinery, recruiting from unused labor sources, efficiency studies, and application.

In getting the great war crops of the Nation planted, produced, and harvested, over 27 million individual placements of farm workers were arranged. These included boys and girls of the Victory Farm Volunteers, recruits of the Women's Land Army, war prisoners, regular farm enrollees, and workers from outside the United States. The group last mentioned reached its peak of 90,000 imported workers in 1944. Transportation, housing, supervision, placement of this vast army of workers from other countries, and the other features of the Farm Labor Program added up to a staggering undertaking.

War prisoners thus used totaled 382,000, and Japanese evacuees 9,278. A total of 2,980 conscientious objectors were employed.

During the nearly 5 years that this program ran, an average of 600,000 farmers asked for labor help annually.

Migrant farm workers followed the harvest from South to North in numbers that reached 150,000 in peak years. Housing, feeding, and medical care for this group were largely furnished through the 270-odd migratory-labor camps, maintained at strategic points under The War Food Administration and intimately assisted by Extension.

Thousands of community programs for swapping labor and machinery were arranged. Courses were conducted to train workers for new jobs. Wide publicity was given to areas needing workers. Many workers who went to those areas and made their arrangements privately are not included in the totals given here. Much Canadian grain-harvesting equipment came to Texas and worked the harvest all the way back home during these emergency years.

To handle this job, farm-labor assistants were placed in many county extension offices and did most of this work under the county agent. Special agents were placed in areas, and aid was extended to experiment stations in working out labor short cuts and new methods of getting things done with fewer workers.

Extension's handling of the emergency Farm-Labor Program brought liberal praise from many sources. When the program was terminated, its director, M. C. Wilson, said:

The story of 5 years of operating the farm labor "action" program by the cooperative Extension Service of the Department and the land-grant colleges is a success story regardless of the angle of approach. * * * The experience of handling a large action program vital to the conduct of the war has unquestionably been good for the Extension Service. * * * Success with the emergency Farm-Labor Program has renewed the confidence of the cooperative Extension Service in itself and in its ability to direct a fast-moving action program.

4-H'ERS MAKE THE BEST BETTER

The equal training of the head, heart, hands, and health of rural young people through 80,286 community 4-H Clubs reached a new high of 1,759,911 members during the year. About 300,000 of these were Negro boys and girls. This work with the young people of the farms is claiming more and more attention from extension workers, and getting it.

The wide scope of work covered in the extension program made heavy demands upon agents' time. The 4-H Club job could not have been done so well or on such a large scale except for the aid given by the 203,000 local community leaders.

Creating Better Homes Today for a More Responsible Citizenship Tomorrow was the theme of 4-H Club work for the year.

With the aid of the new agents and assistants employed, 4-H experienced its banner year. Producing food and conserving it has been a world-wide need. 4-H Club members made their greatest effort to meet this need during the year, even exceeding their great record of war years. Their gardens added up to 104,000 acres, and the food crops in their demonstrations covered a half-million choice acres. They produced 800,000 head of livestock and 10 times that number of purebred poultry, while learning the best methods for doing these things.

These earnest young people helped substantially in the food and feed program and conserved much through learning the latest methods of preserving foods. They canned over 17 million quarts of fruits, vegetables, and meats; brined 180,000 gallons, dried and cured over 2 million pounds, and stored or froze over 10 million pounds of food.

Toward a Better Rural Life

The full measure of these things is not in their market value, considerable as that is, but in what extension workers and local leaders are able to teach these young people while they are producing and processing these products. And it is what these 4-H members pass on to others in their communities that counts most toward a better rural life there.

A New Hampshire girl, Ann Fife, in the past 2 years, prepared for freezing 140 packs of fruit and 180 of vegetables, 10 pounds of venison, 40 pounds of lobster, 16 pounds of fish chowder, 18 broilers, and pies and other pastries. So successful was she in all this that in her community she is now a center for information on freezing foods.

4-H girls, during the year, planned, prepared, and served over 20 million meals as a part of their training. These were balanced meals, worked out according to simple practical standards of good nutrition, as taught in 4-H Clubs.

These young people improved 108,000 rooms in as many 4-H homes and landscaped 115,000 of their homes through home-improvement training.

4-H'ers made or remodeled 2 million garments. Many counties and States held clothing reviews, in which members paraded in outfits of their own making.

A total of 21,000 4-H Club members were enrolled in child-care projects. Using the knowledge that they gained in this work, many of them gave valuable help in caring for small children in their own homes and the homes of neighbors.

The 15,000 4-H tours conducted during the year enabled members to study wildlife, forestry, soil and water resources, and conservation.

Summer camps were among the 4-H high lights of the year. More than 5,000 of them were held where youngsters gained information, received inspiration, and acquired attitudes designed to build good citizens.

Nation-wide gatherings of 4-H members included the National 4-H Club Congress held in Chicago, Ill., November 30 through December 4, 1947, and the National 4-H Club Camp held in Washington, D. C., June 16 through 23, 1948. Both these gatherings drew interested students and visitors from a number of other countries.

Achievement days held during the year were attended by nearly 3½ million members, leaders, parents, and friends of 4-H Club work. The programs for these days were conducted by the members themselves, and recognition was given to clubs and to individual members for accomplishments.

The health "H" in the 4-H emblem is not taken lightly in club work. A total of 609,119 members carried on special health activities, over 200,000 had regular periodic health examinations, and all participated in health drills and in health education. Fire and accident prevention were schooled into the members of 4-H.

At Home and Abroad

In most States, 4-H Club members collected money for packages to go overseas, and in a number of States, purebred animals were bought and sent to devastated areas of Europe. Although the cost of these things ran into many thousands of dollars, the spirit shown of helping others far outweighed the monetary values involved. Correspondence contacts were made with many young people in foreign lands, and an international youth exchange was begun. Seventeen 4-H members from this country went to Europe to spend several months in farm homes of youth interested in similar work in England, Denmark, Sweden, France, and Italy.

At Camp Daniels, the Negro 4-H Camp in South Carolina, 96 older 4-H members turned out to plant to pines.

There are 4-H Clubs in almost every line of farm endeavor. In Oklahoma, for instance, bee-club members increased from 235, in 1937, to 1,791, in 1947, and the number of members enrolled in the study and collection of insects increased from 1,242, in 1935, to 7,057 during the year. Portland, Oreg., has a city 4-H Club agent.

With prospective increases in personnel and greater efficiencies in reaching young people through better organization and more and better local leaders, Extension has set its goal at 3,200,000 4-H members by 1950.

In this expansion program it seems that a little village of less than 300 people in Maine—Passadumkeag—has set the pace by having every boy and girl of club age a member of its local 4-H Club.

WORKING WITH "BETWEEN AGERS"

In between 4-H Club members and the men and women who participate in regular extension programs for adults is a group of young men and women. Their interests as a group differ somewhat from those of the older men and women and the 4-H'ers. Extension has learned from these young people that they are interested in such things as choosing a vocation, getting started in farming, establishing homes, preparing for marriage, developing their personalities, getting acquainted with others, enjoying recreation and social activities, earning money, and helping their communities.

The Extension Service makes special efforts to work with groups of these young people. Extension agents encourage and help them organize and carry on programs suited to their needs and interests. In other cases, the agents work with already-organized groups, helping them to develop more effective programs. The object of this work is to help these young men and women develop their understanding and appreciation of farm life, obtain vocation guidance, contribute to community welfare, develop worth-while spiritual and social values, and become aware of the need for civic responsibility and rural leadership.

Groups are organized on a county or community basis, or on the basis of special interests shared by a number of young people in an area. During the year, 72,709 young men and women belonged to 1,581 such Extension-sponsored groups. Extension workers helped 1,110 additional youth groups with a membership of about 45,000 young men and women. They worked with about 40,000 additional

young people. Veterans and veterans' wives were among the young men and women with whom Extension cooperated.

Although the Extension Service has always worked with young men and women, special extension programs for serving these people are in their infancy. They are still new in many counties, thus making it necessary for both extension agents and the people in the area to become acquainted with the programs and their possibilities.

Yellowstone County, Mont., is one example of a county where the extension agents explored the possibilities and organized an older-youth group. Folk dancing and games were emphasized at the first two meetings to break down the reserve of members and develop a working relationship among them. Picnics were held during the summer, and the last one of these was attended by more than a hundred young people. A committee composed of members of the group outlined a program of educational subjects looking toward continued meetings of the group.

The twelfth annual Iowa Rural Young People's Assembly was held by the Extension Service in Des Moines, February 21 to 23, 1947. The theme was Rural Living—Yesterday, Today, and Tomorrow. About 350 young men and women attended. On January 28, 1947, Rural Youth Day was held at the University of Illinois. More than 470 rural youth from 72 counties attended.

HOME IS WHAT WE MAKE IT

The year marked the third successive year of expansion of home demonstration personnel with funds provided under the Bankhead-Flannagan Act. During the period July 1, 1945, to June 30, 1948, 295 white and 111 Negro home demonstration agents were added, together with 344 assistant county home demonstration agents. This meant that at least 300 counties were being served by home demonstration agents for the first time. By June 30, 1948, a total of 3,318 county and assistant county home demonstration agents were employed in at least 2,327 counties.

In 1947, home demonstration work resulted in 3,069,776 homes being definitely benefited through the home demonstration program, 791,675 of these homes being reached for the first time. Home demonstration agents conducted 704,058 meetings with adults and youth with a total attendance of 20,859,703. In addition, 418,533 local leaders held 168,476 meetings with an attendance of 2,920,823 in connection with home demonstration work. Through the training and use of these volunteer local leaders, the home demonstration agent multiplied her own effectiveness in reaching large numbers of women, including those in remote places.

The increasing number of nonfarm rural homes add to the field calling for extension aid. In 1947, 2,666 home demonstration agents reported definitely working with 1,080,641 such families. At least 373,389 of these homes were reached for the first time.

Several States made special provision for carrying home demonstration work to urban women, and 16 full-time urban agents were employed during the year, largely in eastern and north-central cities. In 1947, the Oregon State legislature passed an act which makes it

legal for city councils to appropriate for extension work in cities of over 10,000. In the vast majority of cases no such provision has yet been made, and the regular home demonstration agents and assistants handle the increasing calls from urban and rural nonfarm women in various ways. In all States the organized rural groups welcome urban dwellers who have farm interests. Urban homemakers visit the county extension office for information and for publications, and listen to home demonstration radio programs. In New York State, urban extension work is aided by a State appropriation. In 1947, three urban agents and six assistants were employed in large cities. Syracuse employed three full-time agents who assisted 150,000 through meetings, consultant service, correspondence, bulletins, and exhibits. A large number of people were reached by press and radio.

Families of veterans, many of whom were establishing homes for the first time and were lacking in farm background, were assisted in many ways by county extension workers. The women members of these families were asked to meet with the established home demonstration clubs, and, where enough of them were interested, special clubs were organized and designed to meet their special needs. Programs for veterans' wives were conducted in 14 Ohio counties. Home demonstration groups were organized at some of the trailer camps and housing projects for veterans, and especially on the State agricultural-college campuses, where large groups of married veterans were in school. This was especially true in New Hampshire, New Jersey, New York, Maine, Rhode Island, Virginia, Georgia, Colorado, and Wyoming. On the campus of the University of Maine, the home demonstration club met every 2 weeks with an average attendance of 70 in 1947.

The Food Folks Eat

Better nutrition in rural America was an important goal of Extension's program during the year. Ninety-two extension nutritionists in the States, Hawaii, and Puerto Rico worked through the home demonstration agents, each of whom was the herald of better balanced meals in her county. The agent taught nutrition through the home demonstration and the 4-H Clubs, meetings with special groups, newspapers, and over the radio.

Many studies of eating habits have been made as a basis for nutrition teaching. In the Southeast, it was found that so many degerminated corn products (meal and grits) were eaten that the average daily diet was thrown considerably out of balance. Milling processes in the past 25 years had removed more and more of the rich germ of the corn. The South Carolina Agricultural Experiment Station worked out a simple and inexpensive means of enriching corn meal and grits. Home demonstration clubs and other groups endorsed the idea. A State law was passed requiring that all degerminated corn products sold in the State be enriched. This program has been working in the State for several years, and other Southern States are following the lead.

In Nevada, home demonstration agents assisted 1,606 families during the year in improving their diets.

In recent years freezing of foods has come more and more to be used as a means of preservation. Most of the lockers in the 9,529

plants in the country are rented to farm people. Extension workers help farm people to produce and prepare foods best suited to freezing, and conduct many schools for locker-plant operators, too. The cooking of frozen foods is a new branch of the culinary art that home demonstration agents carry to farm folks.

During the year 149,297 families were helped with child-feeding problems. In Georgia the home demonstration agents, in cooperation with health authorities, got 1,938 mothers to attend prenatal clinics, and 3,250 children were examined at well-baby clinics.

Since the beginning of school lunches in rural areas, the extension program has recognized the school lunch as important to good nutrition. First, came the box-lunch program. Then a hot drink was provided. This program has grown into the present-day school lunch system, in which Extension and farm women still take an active interest. Although a well-organized national school lunch program was under way during the year, extension groups still helped in an educational way and in planning and obtaining needed facilities. Home demonstration clubs aided 21,083 rural schools in equipping and operating school lunchrooms in 1,399 counties in 1947.

Families Better Housed

In 108,166 instances of farm remodeling and 47,640 of building new farm homes, county extension workers were consulted during the year. Meetings to improve housing were held in every State, and 2,543 counties reported work done. Kitchens improved with the help of the agents were 240,249; other rooms beautified, 267,930; and families assisted with house furnishings, 343,056.

Lighting and lamp shades; color schemes and furniture arrangements; slip covers and curtains; flowers, accessories, and pictures; reseating chairs; refinishing floors and walls; retying worn springs were among the helps given to 4-H boys and girls and to homemakers as aids in making their homes more restful and attractive.

Through home demonstration groups, many rural families made use of timely economic information in deciding what to buy. Nearly half a million families reported that they adjusted their spending plans as a result of studying home finances.

Looking ahead while farm income is relatively good, was the special slant taken to assist rural families with family economic problems. Business firms that were interested in selling farmers new household equipment used the spectacular method of showing that a refrigerator could be purchased in 1947 with the money received from the sale of five hogs, in contrast with receipts from 20 hogs in 1940. Basic information on the relation of changing prices, farm income, cost of family living, and adjustments ahead as both national and international situations changed was substantially the type taught by extension workers. Use of timely economic information was reported by 464,609 families in making adjustments in family living. Family business practices, including demonstrations on avoiding financial and property tangles, contracts and negotiable instruments, and descent of property by law and by will were topics that aroused the enthusiastic support of both men and women.

Home Sewing on the Rise

The national wave of home sewing has shown a continued rise. Reflection of this trend is shown by reports that 558,359 families were helped with sewing problems in 1942, and 845,575 families received help in 1947. The number of 4-H girls enrolled in the clothing project has been on the increase for several years. During the year it was 546,555. Most predictions indicate that the peak for home sewing has not yet been reached.

High living costs as well as style and fabric changes have increased requests for help on buying problems. High prices coupled with the problem of getting unsatisfactory quality in children's clothes have given consumers particular concern. Almost every State held special meetings to give help on selection of children's clothing. In California, 2,895 families in 32 counties used suggestions on the buying of children's clothes. In North Dakota and Vermont, home demonstration agents received special training by the clothing specialists so that they could give intensive training to leaders of young homemakers' groups. Exhibits, news articles, radio scripts, and news letters were used almost country wide.

Living Together in the Home

The extension family-life program has interpreted research in the field of human development and relationships through 213,615 men and women in group work, and assisted 545,338 with child-development and family-relationship problems. Older youth and young adult groups have discussed marriage and parenthood. 4-H Club members have studied personal development, family and social relationships, and child care. One of the three family-life specialists in New York gives his full time to this youth program.

The 23 State family-life specialists worked with other organizations and agencies on the preparatory committees of the National Conference on Family Life. Family-life institutes were held in 92 Georgia counties and the Extension Service united with other groups in a 3-day State conference to study family-life problems.

Wider Horizons

Rural women are beginning to think that being informed in a broader way is an important part of homemaking. They are getting satisfaction from being thus informed and in being able citizens. Greater interest is being shown in what goes on in local and State government activities and international affairs. The slogan of Illinois farm women was, Home Is the Center of a Woman's Life, Not Its Circumference.

Training schools and institutes on citizenship for rural leaders, forums and discussions with home demonstration groups, were conducted in several States, including Arkansas, Arizona, Colorado, Illinois, Idaho, Kansas, New York, Oregon, Vermont, and West Virginia.

The late war made the world seem smaller, and now the question is being asked, Can nations be neighbors? The interests of some home demonstration groups have gone beyond State lines and the borders of

the United States, which is evident from the following features and activities reported for the year by all the States:

1. Letters-for-friendship programs, in which hundreds of rural women correspond with rural women of other lands to learn about the problems and life of families in other countries.
2. Exchange programs with groups in England, Australia, New Zealand, Scotland, Holland, and other countries.
3. Study of the purposes and possibilities of the United Nations as an organization for creating world peace. Special study of the work of the Security Council, the United Nations Educational, Scientific, and Cultural Organization, and the Food and Agriculture Organization.
4. International Day programs and fiestas. Programs on the life and culture of peoples of foreign countries. On the list are China, India, Norway, Sweden, Denmark, Greece, France, Germany, Holland, Italy, and Russia; also Mexico, and Brazil and other South American countries.
5. Gift boxes of needed food and household articles to families in war-torn countries.
6. Pennies for friendship contributions for the rehabilitation work of the Associated Country Women of the World.
7. Motion pictures featuring foreign countries, shown by extension services.

About 100 rural homemakers attended the conference of the Associated Country Women of the World, held in Amsterdam, in September 1947, and some of them have given as many as 50 talks on conditions abroad since returning to their counties. Several hundred farm women, especially those of the Northeastern States have visited sessions of the Security Council, United Nations Organization, at Lake Success.

The County and Community

All home demonstration programs include some practical aspects that have to do with stimulating families to think more carefully about their immediate home problems. Naturally, thinking and planning extend to the community outside the home. Since the Second World War, an expansion in the cultural and community interest of the home demonstration program is noted with each year. Community recreational activities are receiving increased attention.

Home demonstration groups are taking an active part in making good books available to rural communities. Librarians in Wisconsin held leader-training meetings at county home demonstration council meetings. This has led to studying book lists, better selection of books, and planned facilities for book distribution in rural communities. Through the cooperation of county libraries in California, a reference branch of home economics books was established some years ago in most of the county extension offices and continues to be a helpful source to rural women. New reference books are purchased each year by the county librarians and sent to the home demonstration branch libraries. In 1947, 813 county home demonstration agents throughout the country reported that 6,699 communities were assisted in providing library facilities. Among the States reporting library activities, other than those already mentioned, were Arizona, Florida, Georgia, Oklahoma, Maryland, Missouri, Mississippi, Montana, Nebraska, New Mexico, North Carolina, Louisiana, and Kansas.

Largely through the efforts of home demonstration groups, 1,517 club or community houses and 344 community restrooms were established in 1947. Also through community effort, 7,333 school or other community grounds were improved or landscaped.

Since the late war more activity in home and community recreation has been encouraged by extension agents, especially through home demonstration groups and 4-H Clubs. In 1947, 33,292 communities were assisted in improving community recreational facilities.

Camps for women continued to be popular; 575 home demonstration agents reported that 699 camps for women were held in 1947 with an attendance of 39,528.

FOR HEALTHY BODIES

Since the passage of the Hospital Survey and Construction Act of 1946, Extension has quickened its aid to rural groups with regard to better health habits and the procurement of needed facilities. Twelve States had specialists on their extension staffs during the year to aid in this work. In cooperation with their State health service, the Alabama Extension Service got out timely publications explaining the Hospital Act and pointing out how rural communities could take advantage of it.

In Michigan, rural people asked that Extension be designated to lead in organizing for rural health improvement. Many other States reported similar health activities.

Seventeen State medical societies reported that Extension was one of their main aids in developing rural health programs.

WORK WITH NEGROES ADVANCES

Work with Negroes is an integral part of Extension. Of the 1,306 agricultural counties in the Southern States, 420 have 450 or more Negro farm families. In 360 counties, Negro agricultural agents and Negro home demonstration agents serve Negro farmers. In counties with no Negro agents, white extension workers serve white and Negro farmers alike.

The work of all these extension agents has been included as a whole in this report of high lights and summaries, rather than reporting the work of Negro and white agents individually, for Extension serves all people. However, a few additional high lights of Negro agent work are given in this section.

Negro extension agents have emphasized safe farming and better living through organization and broadening of the whole extension program. Through their work with Negro farm families, they have reduced poverty, debt, and dissatisfaction. More Negro farmers are willing to come under the influence of extension practices than ever before. Those farmers who took advantage of instruction this year have ample food for themselves and feed for their livestock. Never before have so many Negro farmers been prepared to grow their crops without mortgages and to carry on a system of diversification. Much of their success has been due to Extension-sponsored programs of producing and marketing vegetables, small fruits, milk and butter, and chickens and eggs.

Negro farm families built many homes during the year. These homes represent almost a revolutionary change in living conditions.

Extension agents throughout the South put forth special efforts to help improve the health of Negro farm families. They are keenly conscious of the handicaps under which many Negro people live. So

they included some type of health education in practically all of their extension programs. Their health-education activities included tours, campaigns and drives, clinics, and the distribution of literature.

Negro agents have put much emphasis on professional improvement. Short courses were held for Negroes in Virginia, Alabama, Maryland, West Virginia, and several other States.

Farm ownership has been the theme of the Negro county and home agents' work in Johnston County, N. C., for several years. Since 1940, Negro farm ownership has more than doubled there, and 4-H enrollment of Negro boys and girls has grown from 324, in 1943, to 825, in 1947. They work with over 1,550 farm families. During the year, 39 new homes were built. Much of this progress was made possible by the development of the live-at-home program.

Local Negro agents were instrumental in getting the first \$33,000 unit of a community center built at Montgomery, Ala.

In North Carolina the 42 counties having Negro county agents have more than 44,000 Negro farm families. During the year, agents reached 28,000 of these families.

More and more, Negro extension agents are being recognized as valued members of the local communities in which they live and work. They are being paid better salaries and are gradually being furnished more and better office quarters and equipment with which to do their work. Where reductions of funds for such work have been found necessary by State legislatures and county boards, they have been made in most cases with a spirit of regret and a promise to increase appropriations as soon as possible.

Another indication that Negro extension work throughout the South has met with almost unanimous approval is the attitude taken by the public press and radio broadcasting companies. County and State papers almost everywhere are glad to carry news items in their columns pertaining to the success of Negro farm people. Radio stations, local and national, have provided for the appearance of Negro agents and 4-H Club members to broadcast the results of their achievements.

IMPROVING THE COMMUNITY

Aid given to farm and home does not tell the whole extension story, for people live in communities, too. And they like to have them good places to live in. Local organizations and churches play a big part in community improvement, so Extension works closely with them.

Extension during the year, helped farm organizations and other groups in 2,172 counties to improve their programs and activities, and supplied them with much factual information on which intelligent action could be based.

A series of community family nights was conducted in Lubbock County, Tex., with all groups participating. In Louisiana a monthly leaflet containing program suggestions was printed and distributed to hundreds of community groups. Nebraska, North Carolina, and Iowa got out discussion guides in connection with their community-improvement programs.

Extension and the rural church cooperate in many ways. Rural Life Sunday and 4-H Club Sunday were feature days in many places, with extension agents and rural ministers working together. Many rural ministers are local 4-H Club leaders.

In Missouri and Maryland, 4-H Clubs and home demonstration groups cooperated in beautifying town and country churchyards. Indiana farmers learned about soil conservation at their churchmen's club meetings. In a Minnesota county, the extension service handled the rural chest X-ray program through local churches and obtained wide coverage. Home demonstration meetings and 4-H Clubs are often fostered by churches. Extension sociologists and other extension workers assisted with annual institutes for rural ministers and other leaders in 24 States.

Recreation is on the upswing in extension programs over the country. Eighteen States now have extension specialists who devote at least part of their time to recreation projects, for what to do with leisure time is important, especially for youth. Over 33,000 communities in 1,990 counties were assisted in improving recreation facilities in 1947, and 1,517 in improving community houses. Booklets and guides for conducting mass recreation were distributed by many State extension offices.

In Kansas, 368 plays were presented by extension groups in 44 counties; over 800 communities had singing as a part of their program; and 102 handicraft centers were organized.

A Negro county agent in Mississippi helped his people to plan and build a community center and a recreation area.

There is an enthusiastic development of county choruses of rural women in a number of States. Illinois Extension groups in 20 counties merged to form a chorus of 900 voices that proved popular at many local and State-wide events. And a little-country-theater movement was started in North Dakota.

WHERE HELP IS NEEDED

In addition to carrying on its regular work, the Extension Service is often called upon to take the lead in rural areas in special programs such as insect- and rat-killing campaigns and safety weeks.

This year Extension carried the Grain-Conservation Program to every area and to practically every farm. A short corn crop and the increased need of food for export prompted this action. Extension worked closely with the Citizens' Food Committee and with the Department of Agriculture's Office for Food and Feed Conservation.

CAMPAIGNS AND SPECIAL EVENTS

All manner of cuts and savings in the use of grain were worked out in the Federal, State, and county offices and passed on promptly to the farms, where they could be applied. The land-grant colleges and the centers for research within the respective States were urged to take the leadership in determining recommended practices in support of the program.

The greatest farm rat-killing campaign in history was waged by Extension during this effort, in cooperation with the United States Fish and Wildlife Service, industry, and local groups. County agents from many States reported good results from intensive county campaigns, in which tons of poisoned bait were distributed from community centers. Lasting results are in evidence from this campaign, as many farmers are calling for seasonal rat campaigns, and some counties have already staged them.

Success came to the combined efforts of all in this grain-saving campaign. The original goal was to save 100,000,000 bushels. But as the rough winter wore on and the need for food mounted in Europe, the goal grew until nearly half a billion bushels in all were shipped. Extension helped substantially in attaining this enormous saving.

Local farm emergencies, like national ones, are always the concern of Extension, which is ready to help out. In the Maine fire disaster, for example, local agents were early on the ground to direct and serve. Director A. L. Deering of Maine reports:

County agents have lined up all sorts of fire-fighting equipment, including tractors, bulldozers for building fire lanes, big transportation trucks for moving livestock, and are arranging housing, whatever is needed. They have been on the job day and night.

Our home demonstration agents and club agents, with volunteer women they selected, have directed the feeding and clothing of hundreds left homeless. In the disastrous Bar Harbor fire, 1,800 evacuees and 1,500 fire fighters have been fed day and night. We are utilizing also many of our former home agents * * * and others who know how to interest and influence people.

The radio and press have been used constantly to inform and advise our people of action needed and taken. District conferences of our agents were held at once to plan the campaign, coordinate our activities, and develop centralized functioning. Our farm-management specialist, a former county agent * * * has been named State disaster chief for the Extension Service and personnel assigned to his direction. State specialists are active on all fronts.

Later in the year, disaster struck at another corner of the Nation, in the State of Washington. The peril there was water, not fire. Extension was quick and effective in taking hold and helping there too. The story of the State's race against time and floods is a heroic one.

The year is unusual that does not bring such needs for service by Extension.

Educational work on the security-bond drive was carried to farm and ranch by extension workers, who helped as they had done before in all the war-bond drives.

Many special weeks and events that have to do with extension or allied subjects are promoted among farm people for observance and action. During the year these included: National Farm Safety Week, July 20 to 25, 1947; National Fire Prevention Week, October 5 to 11; National 4-H Achievement Week, November 1 to 9; National 4-H Club Week, March 1 to 7, 1948; Pan-American Day, April 14; Child Health Day, May 1; National 4-H Club Sunday, May 2; National Home Demonstration Week, May 2 to 8.

These "days" and "weeks" were the occasion for many Extension-sponsored meetings, radio broadcasts, exhibits, and newspaper stories.

Extension continued to cooperate in carrying information to rural people on the importance of saving fats and oils. It helped them to save and to find a market for thousands of tons of "waste" fat which would otherwise have been thrown away.

REACHING OUT

Information services play a big part in Extension's educational and action programs in the field.

Extension has a long-time program for farm and home betterment that is worked out with farm people to serve the needs of farm and home. But in addition, many emergency matters are turned over to

Extension for handling. To get these before all the people in the shortest possible time, Extension makes a planned use of the many ways of reaching masses of people. These means include the press, radio, and all the common visual aids. They all are useful in advancing the long-time farm and home program in every county, but they become even more important in emergency programs that Extension is called upon to handle.

The ability to reach practically all farm people quickly and at almost the same time has become one of Extension's strongest means of getting action under way on farm and home matters. Especially is this true in handling emergency programs, where the time element is important.

Circular letters, handbills, posters, moving pictures, slides, and exhibits are other means used extensively in reaching people for the purpose of teaching lessons and getting action.

Extension workers have been trained in simplified and effective writing, and their work has been analyzed for readability with a view to having it prepared on a reading level that can be easily understood by their farm audiences.

During the year, extension workers visited over a third of the farms of the Nation personally in answer to calls to diagnose situations, offer advice, and answer questions. Over 8¾ million persons called at county agents' offices for information and over 7 million called over the telephone.

In using mass-information means, 805,467 news articles and stories were published, almost 18 million bulletins were given out, and 68, 447 radio broadcasts were made by extension workers.

A special radio institute was held at Columbus, Ohio, for extension radio specialists so that the use of this important medium might be extended and improved. Twenty radio schools for county and State extension workers were held. Extension radio is growing with the industry, and each year finds more county and State workers on the air regularly.

Publication economies are being worked out by States with similar agricultures. Rather than each State's having a publication on a subject that applies equally to several other States, groups of States are getting together to plan one publication that will serve their several needs. Progress was made in this direction during the year by the extension services in New England.

LEARNING TO DO BETTER

Extension's duties and opportunities grow faster than its personnel. Therefore greater efficiency and greater load per worker are required.

To this end the Division of Field Studies and Training of the Federal Extension Service and the State extension services made field studies designed to obtain information that would strengthen the organization and the conduct of extension work. The studies fell into the following groups:

1. General county and State extension appraisals.
2. Participation in and effectiveness of extension work.
3. Administration and supervision of Extension.
4. Needs and interests of rural men, women, boys, and girls, and programs to meet these needs.

5. Organization of rural people and leadership that included studies of written materials, radio, demonstrations, and communication channels to lower-income groups.

Nineteen States had leaders of studies and training who directed the work in these States.

Using information gained in the studies, the Federal Extension Service and the State extension services continued to give training to extension workers. During the year 3 regional workshops were held for supervisory workers, 6 for specialists, 2 for older youth workers, and 3 for Negro workers. In addition, one regional workshop was held on publications. These workshops were attended by approximately 1,300 workers. An institute for administrative management, the first workshop, was held by Extension in Minnesota in 1942. Though discontinued during the war years, the workshops were resumed in 1945. In the period 1945-46, 15 workshops were held. Forty-four foreign students and 106 foreign technicians from 35 countries also were trained in the latest extension methods and exchanged information with American farmers.

Nine agricultural colleges and universities were aided in planning the summer-school courses they offered for extension workers, and 314 workers took these courses. A summer school was held for 80 Negro workers in Alabama, at Tuskegee.

IN THE SPOTLIGHT

What others say about us when we are not around might be a pretty good way to size up our niche in the community, State, and Nation. For some years appreciation of extension methods and the services of personnel has been increasing steadily. During the year this became more and more evident.

To illustrate:

The county and home agents of Stutsman County, N. Dak., were named "citizens of the week" in their county.

Did they run Al Hacker out of Lehigh County, Pa., after 32 years as their county agent? They did not. But close to 1,000 leading folks there assembled at a banquet in his honor and presented him and his wife with gifts. Similar honor was paid to Verne Beverly, agent in Aroostook County, Maine, and to W. R. Gray, agent in Greenville County, S. C. Both men had completed **25 years of service.**

The Indianapolis Star paid tribute to home agents in its editorial captioned "Thank you, Miss Gaddis." This was in commendation of her 30 years as State home demonstration leader for Indiana as well as a tribute to home agents in general.

The editor of the Atlanta Constitution, in concluding one of his features, "Reports from the Country," said, "I'd like to see every county honor its county agent. He holds the most important position in the county."

"The Busiest Man in the County—Your County Agent" was the heading of a full-page article in Master Farmer, put out by Cities Service for 200,000 readers.

After visiting Europe, a correspondent for the Farm Journal said, "What Germany needs is 100 good county agents."

Programs over the NBC network frequently featured cooperative extension work during the year.

Extension was further complimented by many other countries' sending men and women to the United States to study extension methods of mass teaching and mass action on farm problems.

K. J. Edwards, formerly with the Texas Extension Service, and five county agents went to Saudi Arabia some time ago to set up a service similar to our own for that country. During the year Mr. Edwards came back to this country to look for more agents. The King of Saudi Arabia expressed himself as being well pleased with progress there.

Extension courses to train native workers are under way in Greece, headed by men and women agents from the United States.

Home economists from this country are helping with the German food problem.

Peru and El Salvador employed American extension agents. Japan, too, is developing agricultural extension patterned much after ours.

Washington State's extension dairyman was on loan to Ecuador. Burma is calling for two of our extension workers under the Fulbright Act.

The United States Army has been seeking extension men for work in rehabilitating Korea.

County agent teaching techniques and methods formed the nucleus for a seminar in Washington, D. C., in February 1948 on extension education for agricultural missionaries and foreign students.

WHAT'S AHEAD

Extension workers are receiving more and more calls for help. And they are becoming better and better equipped to give this help.

Increased service calls for better organization of the work, all the way from headquarters to county, to the end that science may find an even easier road from its source to the farm and home, where it is put to work.

Workers in increasing numbers are becoming better fortified for their jobs by taking special courses at colleges and universities and by attending the workshops in many States and districts, where extension specialists and others teach the latest and best methods of reaching people and of getting the jobs done.

After a third of a century's growth, Extension finds itself in a fast-changing world. But it is seasoned in the ways of growth and change. From the Federal office in Washington, D. C., on out through the agricultural colleges and into the communities of the counties, it is ever planning ahead to meet new needs of farm people in particular, and the people of the United States in general.

Late in 1945, Clinton P. Anderson, then Secretary of Agriculture, suggested to the Association of Land-Grant Colleges and Universities that the Department of Agriculture and the Association appoint a joint committee to study and make recommendations on the policies, programs, and goals of the cooperative Extension Service. This was done. The committee made a thorough study of its subject and took note of the mark Extension had made through the years on rural life in America. It found that many of Extension's greatest accomplishments didn't fit into numerical measure. For how can one count changed attitudes, self-help that has been stimulated, or the beefsteaks that come from liming the soil? But many of the greater jobs done

by Extension could, the committee found, be expressed in terms of quality. So the joint committee made special mention of the following, which will be incorporated in its report to be printed in the latter part of 1948:

1. Applying the findings of research.
2. Solving problems through group action.
3. Understanding economic and social factors.
4. Improving family diets.
5. Improving other functions of the homemaker.
6. Work with rural youth.
7. Counseling on farm problems.
8. Mobilizing rural people to meet emergencies.
9. Contributing to the science of government and education.
10. Aiding the esthetic and cultural growth of farm people.
11. Contributing to urban life.
12. Developing rural leadership.

EXTENSION WORKERS SERVE MANY

Though not adequate to meet increasing demands, Extension's staff of 11,500 technically trained workers and 5,800 clerks devoted many overtime hours to meeting numerous demands for new or expanded programs.

Of Extension's 17,300 workers, 74 percent, or 12,800, were county workers. They dealt directly with rural United States in the 48 States, Alaska, Hawaii, and Puerto Rico. They included 4,843 county agricultural agents and assistants, working with the farmers and supervising extension work within their respective counties. There were 3,318 home demonstration agents and assistants who worked with farm and other women interested in bettering home practices. County agents, assistant agents, and home demonstration agents all spent considerable time in 4-H Club work. Working exclusively with rural young people were 656 4-H Club agents and assistants. Of the county workers, 726 were Negro agents.

Added to the local county staffs are State and Federal forces. Approximately 25 percent of the technical personnel—supervisors, specialists in fields of agriculture and home economics, and others who help to train leaders—are on State staffs in land-grant colleges.

In the Federal office, housed with other bureaus in the United States Department of Agriculture, are the administrative staff and the technical specialists who deal with specific farm and homemaking problems. These specialists serve as liaison officers between the Department bureaus and the State specialists in the same field. They carry to these 1,876 State specialists the latest technical information on research and practical development in their fields.

STATISTICS

Congress appropriated \$3,000,000 additional Federal funds for 1949 authorized by the Bankhead-Flannagan Act. The new Federal funds, together with a \$4,195,410 increase in State and local appropriations for Extension, give a total of about \$67,500,000 from all sources for cooperative extension work during the year beginning July 1, 1948. Of this amount 52 percent is State and local funds and 48 percent is Federal funds. That compares with total regular appropriations for the year ending June 30, 1948, of about \$59,500,000, of which 52 per-

cent came from Federal and 48 percent from State sources. It was necessary to withhold \$3,732.14 of Federal funds appropriated in accordance with the Bankhead-Flannagan Act of June 6, 1945, from the State of Arkansas during 1947, due to inability of the State to match the amount from sources within the State.

TABLE 1.—Number of counties with county extension agents, July 1, 1915, 1925, 1935, and 1948, and total number of extension workers, July 1, 1948

State	Num-ber of agricul-tural coun-ties in State	Counties with agents on July 1—								Total exten-sion workers July 1, 1948
		1915		1925		1935		1948		
		County agricul-tural	Home demon-stration	County agricul-tural	Home demon-stration	County agricul-tural	Home demon-stration	County agricul-tural	Home demon-stration	
Alabama.....	67	67	19	59	37	67	44	67	67	399
Arizona.....	14	3		12	9	11	6	12	¹ 12	45
Arkansas.....	75	52	20	50	39	75	72	75	75	291
California.....	56	11		43	22	43	25	48	39	319
Colorado.....	63	13		20	2	45	5	¹ 48	¹ 30	131
Connecticut.....	8	6		8	7	8	8	8	8	74
Delaware.....	3	3		3		3	3	3	3	26
Florida.....	63	36	27	36	30	44	29	61	44	186
Georgia.....	159	81	48	121	61	155	80	151	122	467
Idaho.....	44	3		16	27	31	37	39	¹ 22	95
Illinois.....	102	18		95	21	97	39	¹ 102	¹ 94	353
Indiana.....	92	31		79	1	91	12	92	61	281
Iowa.....	99	11		99	15	99	35	99	74	397
Kansas.....	105	39		63	15	100	27	99	70	286
Kentucky.....	120	39	19	72	24	114	29	120	96	335
Louisiana.....	64	43	13	48	24	62	52	64	64	331
Maine.....	16	3		16	15	16	15	¹ 16	¹ 16	70
Maryland.....	23	13	6	23	19	23	23	23	22	123
Massachusetts.....	12	10		11	11	11	10	11	11	108
Michigan.....	83	17		57	5	73	5	¹ 83	¹ 60	281
Minnesota.....	87	23		58	8	86	11	87	53	328
Mississippi.....	82	49	33	54	44	79	69	82	79	439
Missouri.....	114	15		50	9	114	14	114	94	390
Montana.....	56	8		23	6	40	8	¹ 48	24	102
Nebraska.....	93	8		43	2	93	14	¹ 84	40	174
Nevada.....	16			8	9	14	6	¹ 15	¹ 9	32
New Hampshire.....	10	5		10	8	10	10	10	10	64
New Jersey.....	20	7		18	11	19	15	20	19	106
New Mexico.....	31	8		21	5	24	10	30	19	95
New York.....	56	29		55	38	51	37	56	52	464
North Carolina.....	100	64	34	74	49	97	53	100	100	551
North Dakota.....	53	15		33	1	53	4	51	17	119
Ohio.....	88	10		85	15	84	22	88	75	277
Oklahoma.....	77	56	24	65	44	77	68	77	77	312
Oregon.....	36	12		28	3	34	6	36	27	167
Pennsylvania.....	67	14		63	28	65	63	67	66	255
Rhode Island.....	5			5	2	5	5	¹ 5	¹ 5	25
South Carolina.....	46	43	24	40	38	46	46	46	46	296
South Dakota.....	68	5		34	32	69	27	56	¹ 40	125
Tennessee.....	95	38	24	50	26	95	42	95	86	408
Texas.....	254	99	27	155	88	235	151	¹ 250	¹ 201	725
Utah.....	29	10		18	11	21	8	28	24	90
Vermont.....	14	9		12	7	14	11	14	13	66
Virginia.....	99	55	22	65	35	93	42	99	87	353
Washington.....	39	10		26	5	38	8	39	32	141
West Virginia.....	55	27	10	36	15	44	27	50	39	188
Wisconsin.....	71	12		48	1	65	7	71	64	264
Wyoming.....	23	6		16	5	20	7	22	18	66
Alaska.....	4							1	2	7
Hawaii.....	5					4	4	4	4	71
Puerto Rico.....	46							46	46	142
Total.....	3, 107	1, 136	350	2, 124	929	2, 857	1, 351	3, 012	2, 458	11, 440

¹ Some agents cover 2 or more counties.

TABLE 2.—Number of Extension Workers, June 30, 1948

State	Number of agricultural counties	County agent work						Home demonstration work						Boys' and girls' club work						Specialists	Total	
		White			Negro			White			Negro			White			Negro					
		State leaders	Assistant State leaders and district agents	County agents	Assistant county agents	State leaders	Assistant State leaders and district agents	County agents	State leaders	Assistant State leaders and district agents	County agents	State leaders	Assistant State leaders and district agents	County agents	State leaders	Assistant State leaders and district agents	County agents					
EASTERN REGION		Connecticut	8	2	1	8	7	1	1	3	8	1	2	8	1	1	2	8	1	1	25	74
		Delaware	3	1	1	3	1	1	1	3	3	1	1	1	1	1	1	2	2	1	12	26
		Maine	16	2	1	14	3	1	1	13	13	1	1	1	1	1	1	13	1	1	18	70
		Maryland	23	4	1	23	13	1	1	20	8	3	2	1	2	1	1	1	2	1	40	123
		Massachusetts	12	1	1	11	16	1	1	11	10	1	1	4	1	1	4	12	11	1	29	108
		New Hampshire	10	3	1	10	9	1	1	9	8	1	1	1	1	1	1	10	4	1	16	64
		New Jersey	20	2	1	20	11	1	1	20	8	1	1	1	1	1	1	15	2	1	24	106
		New York	56	1	1	56	65	1	1	50	50	1	4	1	1	5	54	41	1	1	131	464
		Pennsylvania	67	5	1	66	40	1	1	64	6	1	3	1	1	7	3	2	1	1	62	255
		Rhode Island	5	1	1	3	1	1	1	3	1	1	1	1	1	2	2	13	2	1	10	25
		Vermont	14	2	1	14	1	1	1	12	1	1	1	1	1	2	2	28	1	1	20	66
		West Virginia	55	1	1	50	8	1	1	38	1	7	2	1	2	2	2	5	1	1	37	188
		Region total	289	25	8	278	174	8	11	251	89	1	11	26	158	69	5	424	1,569			
SOUTHERN REGION		Alabama	67	1	1	67	100	1	1	4	67	42	2	30	2	2	2	1	2	1	35	399
		Arkansas	75	2	1	78	29	1	1	4	79	13	2	25	1	1	1	1	1	1	30	291
		Florida	63	2	1	61	23	1	1	3	42	9	1	11	1	1	1	1	1	1	18	186
		Georgia	159	2	1	150	37	1	1	6	119	22	1	29	1	1	1	1	1	1	45	467
		Kentucky	120	2	1	119	41	1	1	5	93	6	5	5	1	10	1	1	1	1	38	335
		Louisiana	64	2	1	64	60	1	1	4	64	42	1	22	1	2	1	2	1	1	42	331
		Mississippi	82	2	1	82	76	1	1	5	78	37	2	59	1	5	2	1	1	1	46	439
		North Carolina	100	2	1	100	114	1	1	6	100	59	3	50	1	3	1	1	1	1	54	551
		Oklahoma	77	3	1	77	47	1	1	4	77	33	1	14	1	2	1	2	1	1	44	312

South Carolina.....	46	3	---	3	---	44	1	1	31	1	4	46	32	1	1	27	2	4	---	---	---	49	299	
Tennessee.....	95	3	---	3	---	105	1	1	12	---	4	83	30	---	1	12	1	3	---	---	52	408		
Texas.....	254	3	---	3	---	78	1	3	47	1	15	181	31	1	2	45	2	---	---	---	58	725		
Virginia.....	99	4	---	4	---	42	1	1	29	---	6	82	12	---	1	25	2	2	---	---	44	353		
Puerto Rico.....	46	3	1	3	---	3	---	---	---	---	4	46	---	---	---	---	1	2	---	---	32	142		
Region total.....	1,347	34	4	78	1,323	799	9	17	343	10	74	1,157	358	2	18	354	18	40	---	1	7	2	587	5,235
NORTH CENTRAL REGION																								
Illinois.....	102	2	---	5	99	18	---	---	---	1	3	87	13	---	---	---	1	9	48	12	---	55	353	
Indiana.....	92	2	---	5	92	39	---	---	---	1	2	58	3	---	---	---	1	9	7	---	62	281		
Iowa.....	99	5	---	7	97	2	---	---	---	1	3	59	¹ 32	---	---	---	3	4	² 90	³ 5	---	89	397	
Kansas.....	105	1	---	7	99	12	---	---	---	1	4	66	16	---	---	---	1	5	17	---	57	286		
Michigan.....	83	3	---	5	75	12	---	---	---	1	3	44	5	---	---	---	1	9	49	---	74	281		
Minnesota.....	87	3	---	3	91	4	---	---	---	1	3	48	4	---	---	---	1	10	77	42	41	328		
Missouri.....	114	2	1	5	114	81	---	---	---	1	5	95	32	---	---	---	1	6	---	---	42	390		
Nebraska.....	93	1	1	3	79	8	---	---	---	1	2	36	3	---	---	---	1	4	---	---	35	174		
North Dakota.....	53	1	1	4	50	16	---	---	---	1	1	16	1	---	---	---	1	4	---	---	23	119		
Ohio.....	88	2	---	6	87	40	---	---	---	1	4	72	1	---	---	---	1	5	3	---	55	277		
South Dakota.....	68	1	1	3	52	4	---	---	---	1	2	27	---	---	---	---	1	6	---	---	27	125		
Wisconsin.....	71	3	---	6	70	29	---	---	---	1	4	61	1	---	---	---	1	4	20	1	63	264		
Region total.....	1,055	26	4	59	1,005	265	---	---	---	12	36	669	111	---	---	4	14	75	311	60	1	623	3,275	
WESTERN REGION																								
Arizona.....	14	2	---	---	11	9	---	---	---	1	---	8	3	---	---	---	1	---	---	---	10	45		
California.....	56	1	---	5	48	152	---	---	---	1	3	39	27	---	---	---	---	4	---	---	39	319		
Colorado.....	63	2	---	2	44	6	---	---	---	1	---	27	3	---	---	---	1	2	15	1	27	131		
Idaho.....	44	2	1	3	39	1	---	---	---	1	1	17	---	---	---	---	1	1	10	---	18	95		
Montana.....	56	2	---	2	43	3	---	---	---	1	1	21	3	---	---	---	2	2	---	---	22	102		
Nevada.....	16	4	---	---	11	4	---	---	---	---	---	7	---	---	---	---	---	---	---	---	6	32		
New Mexico.....	31	3	---	1	30	18	---	---	---	1	---	19	7	---	---	---	1	1	---	---	14	95		
Oregon.....	36	5	---	1	37	28	---	---	---	1	2	27	4	---	---	---	1	5	20	5	31	167		
Utah.....	29	3	---	1	28	8	---	---	---	---	1	25	1	---	---	---	1	1	---	---	21	90		
Washington.....	39	3	1	2	38	30	---	---	---	---	2	32	6	---	---	---	1	1	---	---	25	141		
Wyoming.....	23	2	1	---	22	6	---	---	---	1	---	17	1	---	---	---	2	---	---	---	14	66		
Alaska.....	4	1	---	---	1	---	---	---	---	1	1	2	---	---	---	---	1	---	---	---	---	7		
Hawaii.....	5	2	1	---	9	22	---	---	---	1	1	9	9	---	---	---	1	1	---	---	15	71		
Region total.....	416	32	4	17	361	287	---	---	---	10	12	250	64	---	---	---	13	18	45	6	242	1,361		
Grand total.....	3,107	117	20	160	2,967	1,525	10	17	351	43	133	2,327	622	2	19	369	58	159	514	136	6	1,876	11,440	

¹ Includes 18 special part-time assistant home demonstration agents.
² Includes 78 special part-time county club agents.
³ Includes 3 special part-time club agents at large.

TABLE 3.—Expenditures of funds ¹ from all sources for cooperative agricultural extension work in States, Alaska, Hawaii, and Puerto Rico, for the fiscal year ended June 30, 1947, by sources of funds and totals for 1942-46

State	Grand total	Total Federal funds	Total within the States	Funds from Federal sources						Funds from within States		
				U. S. Department of Agriculture		Smith-Lever and Bankhead-Jones	Bankhead-Flannagan	Capper-Ketcham	Additional cooperative	State and college	County	Farmers' organizations, etc.
				Clarke-McNary	Norris-Doxey							
Alabama-----	\$1, 877, 869.98	\$1, 038, 227.50	\$839, 642.48	-----	\$400.00	\$654, 071.94	\$342, 811.38	\$37, 220.03	\$3, 724.15	\$366, 353.41	\$386, 411.15	\$86, 877.92
Arizona-----	266, 564.39	150, 347.06	116, 217.33	-----	-----	94, 410.17	33, 103.67	22, 833.22	-----	71, 471.95	44, 745.38	-----
Arkansas-----	1, 233, 538.93	818, 201.78	415, 337.15	-----	1, 620.00	538, 543.78	237, 871.48	33, 217.36	6, 949.16	267, 674.91	145, 096.97	2, 565.27
California-----	1, 922, 012.07	624, 652.97	1, 297, 359.10	-----	-----	414, 446.82	171, 121.35	37, 464.80	-----	771, 745.56	525, 613.54	-----
Colorado-----	573, 925.29	321, 603.03	252, 322.26	-----	-----	158, 977.29	109, 541.44	24, 638.47	27, 395.83	92, 500.00	159, 822.26	-----
Connecticut-----	406, 275.89	155, 430.86	250, 845.03	-----	-----	103, 498.05	25, 512.85	24, 799.96	-----	161, 686.53	64, 000.00	25, 158.50
Delaware-----	114, 803.26	89, 307.74	25, 495.52	-----	-----	55, 616.39	12, 584.53	21, 106.82	-----	22, 220.29	3, 275.23	-----
Florida-----	724, 280.97	283, 356.70	440, 924.27	-----	-----	190, 076.24	64, 242.74	27, 417.72	-----	188, 025.07	252, 899.20	-----
Georgia-----	1, 830, 556.46	1, 036, 723.67	793, 832.79	-----	778.50	659, 119.30	310, 918.22	37, 854.95	26, 432.70	407, 371.16	386, 461.63	-----
Idaho-----	441, 982.21	236, 419.21	205, 563.00	-----	1, 260.00	127, 709.65	79, 351.50	23, 032.55	3, 445.51	90, 405.99	115, 157.01	-----
Illinois-----	1, 824, 809.02	768, 792.53	1, 056, 016.49	-----	1, 350.00	531, 169.12	185, 733.40	38, 183.11	10, 736.90	244, 892.35	13, 760.55	797, 363.59
Indiana-----	1, 658, 839.04	600, 596.35	1, 058, 242.69	-----	1, 480.50	432, 049.76	133, 651.82	33, 414.27	-----	477, 103.38	468, 575.97	112, 563.34
Iowa-----	1, 862, 954.46	744, 377.32	1, 118, 577.14	-----	1, 620.00	468, 515.29	211, 936.60	32, 664.80	28, 020.63	225, 721.64	373, 917.23	518, 938.27
Kansas-----	1, 401, 168.23	545, 332.83	855, 835.40	-----	1, 620.00	323, 026.48	141, 337.40	29, 120.22	50, 228.73	166, 966.75	559, 433.65	129, 435.00
Kentucky-----	1, 464, 300.07	917, 571.21	546, 728.86	-----	-----	625, 981.53	252, 581.72	37, 387.96	-----	250, 000.00	296, 728.86	-----
Louisiana-----	1, 471, 381.03	686, 384.14	784, 996.89	-----	-----	435, 817.47	216, 896.77	32, 049.90	-----	637, 426.59	147, 570.30	-----
Maine-----	334, 460.54	203, 056.22	131, 404.32	-----	-----	129, 431.86	45, 396.47	24, 391.36	2, 216.53	73, 193.91	47, 450.20	10, 760.21
Maryland-----	691, 712.16	262, 065.69	429, 646.47	-----	1, 620.00	171, 298.96	62, 693.48	26, 453.25	-----	282, 345.95	147, 300.52	-----
Massachusetts-----	638, 294.43	165, 074.06	473, 220.37	-----	-----	112, 106.42	27, 364.99	23, 982.65	-----	153, 599.77	319, 620.60	-----
Michigan-----	1, 290, 341.37	683, 932.78	606, 408.59	-----	1, 620.00	471, 836.40	173, 167.42	35, 688.96	-----	481, 901.37	124, 507.22	-----
Minnesota-----	1, 172, 131.74	687, 620.61	484, 511.13	-----	1, 620.00	458, 936.13	193, 231.17	32, 213.31	-----	184, 984.60	276, 804.90	22, 721.63
Mississippi-----	1, 750, 884.32	1, 056, 086.43	694, 797.89	-----	1, 620.00	659, 454.04	358, 141.77	35, 250.62	-----	339, 281.25	354, 991.64	525.00
Missouri-----	1, 478, 790.66	891, 574.91	587, 215.75	-----	-----	564, 917.54	287, 253.46	35, 886.93	1, 686.98	242, 500.00	272, 715.75	72, 000.00
Montana-----	532, 455.04	231, 015.65	301, 439.39	-----	783.00	118, 129.35	56, 855.14	23, 030.42	32, 217.74	128, 919.85	172, 519.54	-----
Nebraska-----	881, 891.87	471, 339.15	410, 552.72	-----	-----	266, 393.57	126, 561.01	26, 982.76	49, 781.81	213, 558.25	188, 922.69	8, 071.78
Nevada-----	211, 320.48	106, 531.00	104, 789.48	-----	910.00	40, 493.58	32, 589.15	20, 583.19	11, 955.08	51, 018.71	53, 770.77	-----
New Hampshire-----	307, 715.21	115, 798.01	191, 917.20	-----	1, 620.00	70, 238.64	20, 990.53	21, 814.30	1, 134.54	101, 971.07	89, 946.13	-----
New Jersey-----	633, 503.32	208, 497.88	425, 005.44	-----	954.00	136, 209.13	36, 514.51	26, 666.64	8, 153.60	166, 879.49	258, 125.95	-----
New Mexico-----	428, 092.47	233, 141.80	194, 950.67	-----	-----	119, 523.81	90, 522.28	23, 095.71	-----	67, 765.36	125, 122.55	2, 062.76
New York-----	3, 415, 193.93	670, 789.75	2, 744, 404.18	-----	1, 620.00	455, 514.75	171, 922.11	40, 112.89	-----	1, 423, 712.65	1, 294, 644.45	26, 047.08

North Carolina	2, 574, 645.38	1, 224, 610.52	1, 350, 034.86	1, 620.00	1, 620.00	812, 167.22	368, 199.29	42, 624.01	604, 131.97	745, 902.89	
North Dakota	554, 768.36	346, 837.43	207, 930.93	1, 620.00	1, 620.00	182, 882.74	99, 186.91	24, 442.25	48, 251.68	159, 679.25	
Ohio	1, 493, 714.31	855, 541.11	638, 173.20	1, 620.00	1, 620.00	584, 338.06	229, 596.65	39, 986.40	331, 611.06	306, 562.14	
Oklahoma	1, 395, 944.98	789, 105.35	606, 839.63		1, 620.00	468, 563.12	234, 883.64	32, 688.61	359, 436.87	247, 402.76	
Oregon	1, 987, 799.41	286, 441.18	701, 358.23	1, 620.00	1, 620.00	162, 916.56	97, 044.31	24, 860.31	468, 451.29	232, 906.94	
Pennsylvania	1, 352, 139.47	755, 587.00	596, 552.47	1, 260.00	1, 260.00	595, 836.84	109, 630.98	48, 859.18	471, 552.47	125, 000.00	
Rhode Island	91, 317.59	59, 581.12	31, 736.47			37, 141.68	2, 267.46	20, 171.98	16, 244.15	12, 900.00	2, 592.32
South Carolina	1, 164, 113.83	732, 755.54	431, 358.29	1, 620.00	1, 620.00	461, 957.51	232, 718.21	32, 487.60	372, 844.39	53, 943.90	4, 570.00
South Dakota	518, 789.54	359, 866.80	158, 922.74	1, 620.00	1, 620.00	166, 146.84	108, 036.79	22, 283.30	91, 095.00	67, 827.74	
Tennessee	1, 398, 841.24	905, 163.91	493, 677.33	1, 620.00	1, 620.00	623, 494.36	243, 599.36	36, 450.19	272, 283.62	217, 493.71	3, 900.00
Texas	2, 820, 496.06	1, 632, 191.70	1, 188, 304.36	1, 620.00	1, 620.00	1, 056, 695.90	441, 121.77	50, 515.24	400, 640.17	784, 655.93	3, 008.26
Utah	420, 343.25	188, 790.93	231, 552.32	1, 207.50	1, 207.50	85, 130.44	66, 713.19	22, 132.38	159, 747.32	71, 805.00	
Vermont	281, 010.49	152, 888.12	128, 122.37	1, 177.18	1, 177.18	85, 171.59	39, 030.03	22, 055.51	76, 035.32	41, 093.75	10, 993.30
Virginia	1, 429, 176.53	763, 878.56	665, 297.97	1, 620.00	1, 620.00	508, 488.49	217, 054.63	35, 095.44	457, 332.55	207, 965.42	
Washington	777, 668.43	354, 975.45	422, 692.98	399.99	399.99	210, 598.38	116, 885.13	27, 091.95	204, 375.74	218, 317.24	
West Virginia	771, 399.07	481, 655.67	289, 743.40		810.00	319, 286.65	129, 851.42	31, 707.60	202, 239.27	77, 810.21	9, 693.92
Wisconsin	1, 546, 534.92	665, 184.23	881, 350.69	1, 620.00	1, 620.00	451, 633.76	176, 594.87	32, 703.17	274, 356.37	561, 994.32	45, 000.00
Wyoming	325, 132.30	168, 941.79	156, 190.51	1, 260.00	1, 260.00	67, 441.38	59, 299.58	21, 368.92	101, 697.51	54, 493.00	
Alaska	34, 218.87	23, 950.00	10, 268.87			13, 950.00		10, 000.00	10, 268.87		
Hawaii	359, 325.31	159, 252.80	200, 072.51			88, 094.83	33, 181.55	21, 385.77	200, 072.51		
Puerto Rico	582, 992.08	243, 308.77	339, 683.31			243, 308.77			339, 683.31		
Total	53, 722, 420.26	26, 154, 356.82	27, 568, 063.44	51, 692.17	28, 196.00	16, 812, 763.58	7, 217, 296.13	1, 489, 408.94	13, 815, 549.25	11, 857, 666.04	1, 894, 848.15
1946	44, 570, 306.10	22, 576, 671.18	21, 993, 634.92	53, 341.58	23, 403.43	16, 756, 606.54	3, 703, 848.95	1, 486, 280.19	10, 752, 505.45	9, 857, 851.23	1, 383, 278.24
1945	38, 171, 919.65	18, 779, 197.58	19, 392, 722.07	49, 416.00	20, 368.44	16, 676, 879.43		1, 484, 519.30	8, 965, 253.00	9, 117, 304.33	1, 310, 164.74
1944	36, 344, 028.66	18, 782, 976.75	17, 561, 051.91	47, 709.68	19, 661.26	16, 678, 434.72		1, 485, 908.29	8, 127, 065.77	8, 266, 940.04	1, 167, 046.10
1943	34, 988, 131.46	18, 799, 715.56	16, 188, 415.90	53, 182.08	24, 902.31	16, 683, 708.54		1, 489, 653.88	7, 415, 254.10	7, 769, 155.79	1, 004, 006.01
1942	34, 474, 580.36	18, 868, 789.90	15, 605, 790.46	56, 214.56	32, 608.10	16, 743, 755.96		1, 489, 051.97	7, 016, 210.64	7, 477, 325.58	1, 112, 254.24

1 Farm-labor funds not included.

TABLE 4.—Expenditures of funds from all sources ¹ for cooperative extension work for fiscal year 1946–47 for States, Alaska, Hawaii, and Puerto Rico

State	Administration		Printing and distribution of publications		Specialists		County agent work				Home demonstration work	
	Administration		Printing and distribution of publications		Specialists		Leadership		County		Leadership	
	Dollars	Per-cent	Dollars	Per-cent	Dollars	Per-cent	Dollars	Per-cent	Dollars	Per-cent	Dollars	Per-cent
Connecticut-----	16,352.95	4.0	5,571.46	1.4	127,540.94	31.4	6,240.70	1.5	100,411.47	24.7	5,738.69	1.4
Delaware-----	11,730.28	10.2	726.53	.6	40,641.66	35.4	3,075.33	2.7	23,048.53	20.1	4,099.13	3.6
Maine-----	30,340.31	9.1	5,910.87	1.8	76,675.15	22.9	5,702.19	1.7	93,225.19	27.9	7,810.18	2.3
Maryland-----	19,208.93	2.8	7,329.60	1.0	276,439.30	40.0	15,211.13	2.2	212,545.61	30.7	11,922.30	1.7
Massachusetts-----	21,848.40	3.4	4,989.00	.8	171,849.30	26.9	10,349.88	1.6	166,401.23	26.1	11,612.79	1.8
New Hampshire-----	21,274.83	6.9	3,392.87	1.1	90,396.92	29.4	5,664.79	1.8	62,509.62	20.3	7,713.11	2.5
New Jersey-----	13,520.84	2.2	3,980.90	.6	130,551.20	20.6	15,392.10	2.4	222,182.41	35.1	10,796.60	1.7
New York-----	197,606.33	5.8	57,878.17	1.7	992,680.66	29.1	37,085.98	1.1	879,100.71	25.8	59,408.18	1.7
Pennsylvania-----	77,557.50	5.7	9,080.35	.7	360,655.14	26.7	13,664.63	1.0	569,473.29	41.4	24,621.51	1.8
Rhode Island-----	6,988.60	7.6	1,241.06	1.4	22,858.09	25.0	1,644.47	1.8	15,450.57	16.9	5,719.00	6.3
Vermont-----	15,274.75	5.4	12,115.00	4.3	59,011.28	21.0	5,607.44	2.0	71,678.28	25.5	6,985.61	2.5
West Virginia-----	28,981.11	3.8	10,988.36	1.4	132,462.26	17.2	24,841.07	3.2	275,253.89	35.6	22,537.55	2.9
Total-----	460,634.83	5.1	123,204.17	1.4	2,481,761.90	27.5	144,479.71	1.5	2,681,280.80	29.7	178,964.65	2.0
Alabama-----	45,940.51	2.4	36,341.20	1.9	237,706.83	12.7	93,669.92	5.0	800,886.16	42.6	51,999.95	2.8
Arkansas-----	55,215.54	4.5	14,004.33	1.1	144,052.40	11.7	42,907.70	3.5	500,787.63	40.6	46,237.97	3.8
Florida-----	22,468.88	3.1	6,296.10	.9	78,693.10	10.9	22,194.76	3.1	348,266.05	48.1	27,545.76	3.8
Georgia-----	23,417.31	1.3	19,734.65	1.1	250,824.13	13.7	73,114.67	4.0	937,618.76	51.2	57,504.89	3.1
Kentucky-----	27,137.51	1.8	27,571.81	1.9	190,421.86	13.0	51,381.22	3.5	761,963.83	52.1	41,175.10	2.8
Louisiana-----	13,303.63	.9	8,076.65	.5	246,373.77	16.8	68,062.78	4.6	602,253.73	40.9	44,275.40	3.1
Mississippi-----	54,556.06	3.1	14,064.20	.8	266,376.68	15.2	68,220.52	3.9	770,313.87	44.0	49,786.40	2.9
North Carolina-----	33,506.06	1.3	31,159.59	1.2	260,610.73	10.1	52,419.63	2.0	1,144,619.97	44.5	59,153.79	2.3
Oklahoma-----	22,802.42	1.6	33,561.31	2.4	207,998.06	14.9	41,526.39	3.0	568,034.23	40.7	48,412.15	3.5
South Carolina-----	69,076.45	5.9	21,108.28	1.8	269,385.49	23.2	48,109.93	4.1	441,025.57	37.9	47,154.42	4.1
Tennessee-----	39,309.05	2.8	13,199.98	1.0	230,899.66	16.5	66,309.02	4.7	562,627.34	40.2	39,229.05	2.8
Texas-----	72,331.67	2.6	35,988.43	1.2	306,416.55	10.9	147,164.67	5.2	1,286,502.48	45.6	125,660.86	4.5
Virginia-----	54,488.23	3.8	11,807.13	.8	218,977.62	15.3	46,888.83	3.3	723,101.36	50.6	41,435.48	2.9
Total-----	533,553.32	2.5	272,913.66	1.3	2,908,736.88	13.8	821,970.04	3.9	9,448,000.98	44.7	679,571.22	3.2
Illinois-----	62,156.82	3.4	20,141.19	1.1	258,484.42	14.2	29,524.55	1.6	888,269.65	48.7	46,830.81	2.6
Indiana-----	56,187.76	3.4	40,978.44	2.5	344,544.80	20.8	33,524.24	2.0	738,745.84	44.5	14,189.94	.9
Iowa-----	75,016.95	4.0	16,384.85	.9	391,747.29	21.0	38,157.50	2.0	837,569.81	45.0	23,513.79	1.3
Kansas-----	43,128.62	3.1	21,811.19	1.5	303,423.14	21.7	32,492.19	2.3	551,498.52	39.4	24,596.05	1.8
Michigan-----	30,601.77	2.4	23,658.29	1.8	387,254.85	30.0	19,753.96	1.5	476,728.88	37.0	22,333.15	1.7
Minnesota-----	36,250.35	3.2	10,839.73	.9	208,453.76	17.7	40,085.47	3.4	510,744.59	43.6	24,995.28	2.1

Missouri.....	26, 062.43	1.7	12, 901.24	1.0	195, 358.93	13.2	37, 930.10	2.6	799, 607.32	54.1	30, 598.22	2.1
Nebraska.....	22, 544.64	2.6	12, 254.61	1.4	146, 480.83	16.6	43, 745.60	5.0	491, 116.55	55.6	22, 510.67	2.5
North Dakota.....	13, 137.95	2.4	4, 346.90	.8	105, 719.03	19.0	43, 546.04	7.8	298, 535.39	53.8	13, 055.02	2.4
Ohio.....	37, 741.55	2.5	27, 943.96	1.9	333, 924.87	22.4	36, 035.74	2.4	726, 454.82	48.6	26, 936.39	1.8
South Dakota.....	14, 062.40	2.7	6, 153.43	1.2	95, 579.50	18.4	13, 608.48	2.6	252, 532.85	48.7	16, 101.27	3.1
Wisconsin.....	36, 212.97	2.3	39, 660.36	2.6	417, 010.23	27.0	51, 855.02	3.4	630, 506.79	40.7	28, 757.46	1.9
Total.....	453, 104.21	2.9	237, 074.19	1.5	3, 187, 981.65	20.3	420, 258.89	2.7	7, 202, 311.01	45.9	294, 418.05	1.9
Arizona.....	17, 668.72	6.6	2, 744.15	1.0	45, 833.80	17.2	7, 914.62	3.0	131, 888.80	49.5	8, 574.84	3.2
California.....	16, 817.93	.9	---	---	274, 321.95	14.3	193, 560.06	10.1	988, 036.25	51.4	37, 724.86	2.0
Colorado.....	12, 738.37	2.2	11, 304.58	2.0	122, 731.14	21.4	27, 010.12	4.7	235, 217.29	41.0	7, 624.83	1.3
Idaho.....	20, 767.96	4.7	6, 771.69	1.5	78, 209.99	17.7	25, 632.48	5.8	217, 771.76	49.3	9, 648.22	2.2
Montana.....	33, 064.60	6.2	8, 383.31	1.6	115, 848.11	21.8	12, 909.51	2.4	215, 510.37	40.5	10, 557.90	2.0
Nevada.....	15, 059.42	7.1	---	---	23, 109.48	11.0	17, 673.31	8.4	63, 412.02	30.0	13, 267.81	6.3
New Mexico.....	22, 794.57	5.3	3, 749.62	.9	77, 103.68	18.0	19, 527.60	4.5	214, 013.29	50.0	9, 382.48	2.2
Oregon.....	61, 090.43	6.2	16, 718.78	1.7	214, 459.76	21.7	22, 553.05	2.3	350, 130.51	35.5	18, 779.80	1.9
Utah.....	55, 944.75	13.3	3, 910.67	.9	70, 182.37	16.7	8, 775.18	2.1	144, 698.71	34.4	11, 011.91	2.6
Washington.....	19, 802.75	2.5	21, 525.12	2.8	120, 166.98	15.4	39, 213.29	5.0	379, 753.81	48.9	31, 693.80	4.1
Wyoming.....	20, 718.59	6.4	2, 709.04	.8	69, 556.41	21.4	16, 147.01	5.0	129, 414.83	39.8	10, 407.27	3.2
Total.....	296, 468.09	4.3	77, 816.96	1.1	1, 211, 523.67	17.6	390, 916.23	5.7	3, 069, 847.64	44.6	168, 673.72	2.4
Alaska.....	6, 710.95	19.6	32.00	0.1	---	---	707.97	2.1	7, 543.70	22.1	5, 690.68	16.6
Hawaii.....	28, 927.55	8.1	2, 104.80	.6	87, 490.12	24.3	26, 305.98	7.4	117, 370.00	32.7	30, 303.25	8.4
Puerto Rico.....	41, 325.50	7.1	2, 715.67	.5	151, 829.93	26.0	61, 590.94	10.6	173, 313.06	29.7	26, 447.59	4.5
Grand total.....	1, 820, 774.45	3.4	715, 861.45	1.3	10, 029, 324.15	18.7	1, 866, 229.76	3.5	22, 699, 667.19	42.3	1, 384, 069.16	2.6

1 Does not include farm-labor funds.

TABLE 4.—Expenditures of funds from all sources ¹ for cooperative extension work for fiscal year 1946-47 for States, Alaska, Hawaii, and Puerto Rico—Continued

State	Home demonstra- tion work		Boys' and girls' club work ²			Total at college		Total in county		Miscellaneous		Total
	County		Leadership		County		Total in county		Miscellaneous			
	Dollars	Per- cent	Dollars	Per- cent	Dollars	Per- cent	Dollars	Per- cent	Dollars	Per- cent		
Connecticut	52,386.81	12.9	12,507.22	3.1	79,525.65	173,951.96	42.8	232,323.93	57.2			406,275.89
Delaware	12,680.14	11.0	4,246.08	3.7	14,555.58	64,519.01	56.2	50,284.25	43.8			114,803.26
Maine	69,913.50	20.9	9,499.96	2.9	35,383.19	135,938.66	40.7	198,521.88	59.3			334,460.54
Maryland	130,099.36	18.8	16,082.70	2.3	2,873.23	346,193.96	50.0	345,518.20	50.0			691,712.16
Massachusetts	102,488.87	16.1	31,643.39	5.0	117,111.57	252,292.76	39.5	386,001.67	60.5			638,294.43
New Hampshire	49,001.15	15.9	11,511.20	3.8	56,250.72	139,953.72	45.5	167,761.49	54.5			307,715.21
New Jersey	108,618.15	17.1	15,724.32	2.5	112,736.80	189,965.96	30.0	443,537.36	70.0			633,503.32
New York	516,488.93	15.1	120,340.12	3.5	554,604.85	1,464,999.44	42.9	1,950,194.49	57.1			3,415,193.93
Pennsylvania	265,380.21	19.6	41,706.84	3.1		527,285.97	39.0	824,853.50	61.0			1,352,139.47
Rhode Island	12,517.92	13.7	5,860.21	6.4	19,037.67	44,311.43	48.5	47,006.16	51.5			91,317.59
Vermont	48,794.70	17.4	8,647.74	3.1	52,895.69	107,641.82	38.3	173,368.67	61.7			281,010.49
West Virginia	126,416.63	16.4	39,040.80	5.1	110,877.40	258,851.15	33.6	512,547.92	66.4			771,399.07
Total	1,494,786.37	16.5	316,810.58	3.5	1,155,852.35	3,705,905.84	41.0	5,331,919.52	59.0			9,037,825.36
Alabama	500,611.43	26.7	21,433.98	1.1		487,092.39	25.9	1,301,497.59	69.3	389,280.00	4.8	1,877,869.98
Arkansas	417,536.16	33.8	12,797.20	1.0		315,215.14	25.6	918,323.79	74.4			1,233,538.93
Florida	197,373.72	27.2	21,442.60	2.9		178,641.20	24.7	545,639.77	75.3			724,280.97
Georgia	429,950.92	23.5	38,391.13	2.1		462,986.78	25.3	1,367,569.68	74.7			1,830,556.46
Kentucky	307,803.29	21.0	56,845.45	3.9		394,532.95	26.9	1,069,767.12	73.1			1,464,300.07
Louisiana	439,837.53	29.9	49,197.54	3.3		429,289.77	29.2	1,042,091.26	70.8			1,471,381.03
Mississippi	483,266.92	27.6	44,299.67	2.5		497,303.53	28.4	1,253,580.79	71.6			1,750,884.32
North Carolina	740,520.47	28.7	28,287.52	1.2		465,137.32	18.1	1,885,140.44	73.2	224,367.62	8.7	2,574,645.38
Oklahoma	447,177.73	32.0	26,432.69	1.9		380,733.02	27.3	1,015,211.96	72.7			1,395,944.98
South Carolina	247,865.74	21.3	20,387.95	1.7		475,222.52	40.8	688,891.31	59.2			1,164,113.83
Tennessee	380,695.66	27.2	66,571.48	4.8		455,518.24	32.6	943,323.00	67.4			1,398,841.24
Texas	824,692.53	29.3	21,738.87	.7		709,301.05	25.1	2,111,195.01	74.9			2,820,496.06
Virginia	312,407.87	21.9	20,070.01	1.4		393,667.30	27.5	1,035,509.23	72.5			1,429,176.53
Total	5,729,739.97	27.1	427,896.09	2.0		5,644,641.21	26.7	15,177,740.95	71.8	313,647.62	1.5	21,136,029.78
Illinois	454,499.42	24.9	63,084.38	3.4	1,817.78	480,222.17	26.3	1,344,586.85	73.7			1,824,809.02
Indiana	212,355.68	12.8	34,214.79	2.0	184,097.55	523,639.97	31.6	1,135,199.07	68.4			1,658,839.04
Iowa	338,331.64	18.2	29,979.26	1.6	112,253.37	574,799.64	30.8	1,288,154.82	69.2			1,862,954.46
Kansas	282,033.71	20.1	30,337.64	2.1	111,847.17	455,788.83	32.5	945,379.40	67.5			1,401,168.23
Michigan	125,233.26	9.7	53,448.10	4.2	151,329.11	537,050.12	41.6	753,291.25	58.4			1,290,341.37

Minnesota-----	157,856.11	13.5	55,862.80	4.8	127,043.65	10.8	376,487.39	32.1	795,644.35	67.9	-----	-----	1,172,131.74
Missouri-----	336,504.01	22.7	39,515.80	2.6	312.61	-----	342,366.72	23.2	1,136,423.94	76.8	-----	-----	1,478,790.66
Nebraska-----	108,327.80	12.3	33,196.22	3.8	1,714.95	.2	280,732.57	31.9	601,159.30	68.1	-----	-----	881,891.87
North Dakota-----	52,655.33	9.5	23,772.70	4.3	-----	-----	203,577.64	36.7	351,190.72	63.3	-----	-----	554,768.36
Ohio-----	260,474.30	17.4	34,249.49	2.3	9,953.19	.7	496,832.00	33.3	996,882.31	66.7	-----	-----	1,493,714.31
South Dakota-----	80,353.94	15.5	40,006.58	7.7	391.09	.1	185,511.66	35.7	333,277.88	64.3	-----	-----	518,789.54
Wisconsin-----	248,515.19	16.1	27,183.35	1.7	66,833.55	4.3	600,679.39	38.9	945,855.53	61.1	-----	-----	1,546,534.92
Total-----	2,657,140.39	17.0	464,851.11	2.9	767,594.02	4.9	5,057,688.10	32.2	10,627,045.42	67.8	-----	-----	15,684,733.52
Arizona-----	42,383.95	•15.9	9,555.51	3.6	-----	-----	92,291.64	34.6	174,272.75	65.4	-----	-----	266,564.39
California-----	381,083.11	19.8	30,467.91	1.5	-----	-----	552,892.71	28.8	1,369,119.36	71.2	-----	-----	1,922,012.07
Colorado-----	99,818.84	17.4	14,366.93	2.5	43,113.19	7.5	195,775.97	34.1	378,149.32	65.9	-----	-----	573,925.29
Idaho-----	37,459.23	8.5	10,513.37	2.4	35,207.51	7.9	151,543.71	34.3	290,438.50	65.7	-----	-----	441,982.21
Montana-----	105,745.36	19.8	19,890.13	3.7	26.95	-----	200,653.56	37.7	321,282.68	60.3	2.0	-----	532,455.04
Nevada-----	46,413.91	22.0	12,016.67	5.6	20,367.86	9.6	81,126.69	38.4	130,193.79	61.6	-----	-----	211,320.48
New Mexico-----	70,037.24	16.4	11,483.99	2.7	-----	-----	144,041.94	33.6	284,050.53	66.4	-----	-----	428,092.47
Oregon-----	140,529.96	14.2	28,275.33	2.8	114,306.20	11.6	361,877.15	36.6	604,966.67	61.3	2.1	-----	987,799.41
Utah-----	112,582.53	26.8	11,666.08	2.8	1,571.05	.4	161,490.96	38.4	258,852.29	61.6	-----	-----	420,343.25
Washington-----	144,692.21	18.7	19,114.78	2.5	1,705.69	.1	251,516.72	32.3	526,151.71	67.7	-----	-----	777,668.43
Wyoming-----	58,669.71	18.0	17,509.44	5.4	-----	-----	137,047.76	42.2	188,084.54	57.8	-----	-----	325,132.30
Total-----	1,239,416.05	18.0	184,860.14	2.7	216,298.45	3.1	2,330,258.81	33.8	4,525,562.14	65.7	.5	-----	6,887,295.34
Alaska-----	9,451.08	27.6	1,128.32	3.3	2,954.17	8.6	14,269.92	41.7	19,948.95	58.3	-----	-----	34,218.87
Hawaii-----	60,515.35	16.8	2,240.82	.6	4,067.44	1.1	177,372.52	49.4	181,952.79	50.6	-----	-----	359,325.31
Puerto Rico-----	115,285.79	19.8	10,483.60	1.8	-----	-----	294,393.23	50.5	288,598.85	49.5	-----	-----	582,992.08
Grand total-----	11,306,335.00	21.0	1,408,270.66	2.6	2,146,766.43	4.0	17,224,529.63	32.1	36,152,768.62	67.3	0.6	-----	53,722,420.26

¹ Does not include farm-labor funds.
² Does not include cost of extension workers who devoted part time to 4-H Club work. Estimated total expended for 4-H Club work, \$17,907,473.42.
³ Retirement.
⁴ Emergency salaries.

TABLE 5.—Unexpended balance of Federal extension funds for the fiscal year ended June 30, 1947

State	Bankhead-Jones	Bankhead-Flannagan	Capper-Ketcham	Total
Arizona-----		\$26,108.35		\$26,108.35
Arkansas ¹ -----		42,507.55		42,507.55
Connecticut-----		1,239.14		4,861.08
Florida-----	\$3,621.94	28,667.54		39,237.12
Georgia-----	10,569.58	38,158.60		47,150.10
Idaho-----	8,991.50	14,356.08		14,356.08
Illinois-----		64,125.48		64,125.48
Indiana-----	1,531.64	74,730.37		76,262.01
Iowa-----		25,645.87		25,645.87
Kansas-----		13,580.63		13,580.63
Kentucky-----		69,289.55		69,289.55
Louisiana-----	30.83	1,067.49		1,098.32
Maine-----		14,595.93		14,595.93
Massachusetts-----	3,525.80	10,210.31		13,736.11
Michigan-----		49,106.10		49,106.10
Minnesota-----	² (46.77)	40,216.11		40,216.11
Montana-----	33.15	28,081.36		28,114.51
Nebraska-----		606.01		606.01
Nevada-----		1,459.51		1,459.51
New York-----	2,564.04	14,520.69	\$35.72	17,120.45
North Carolina-----		55,370.12		55,370.12
North Dakota-----	1,452.08	24,518.15		25,970.23
Ohio-----	1,084.00	48,274.60		49,358.60
Oklahoma-----		2,597.24		2,597.24
Pennsylvania-----	89.78	123,864.80		123,954.58
Rhode Island-----	3,370.51	2,150.28	350.30	5,871.09
South Carolina-----		1,240.07		1,240.07
South Dakota-----	8,978.44	5,403.89		14,382.33
Tennessee-----		81,983.65		81,983.65
Texas-----		110,087.12		110,087.12
Vermont-----		161.49		161.49
Virginia-----		34,728.78		34,728.78
West Virginia-----		6,094.68	205.04	6,299.72
Wisconsin-----		48,768.62		48,768.62
Wyoming-----		4,305.57		4,305.57
Puerto Rico-----	6.42			6.42
Total-----	45,849.71	1,107,821.73	591.06	1,154,262.50

¹ Arkansas unable to offset \$3,732.14 Bankhead-Flannagan funds.

² Minnesota refund.

TABLE 6.—Sources of funds allotted for cooperative extension work in States, Alaska, Hawaii, and Puerto Rico for the fiscal year ending June 30, 1949 ¹

State	Grand total	Total Federal funds	Total within the States	Funds from Federal sources						Funds from within the States			
				Smith-Lever	Bankhead-Jones, section 21, title II	Bankhead-Jones, section 23, title II	Capper-Ketcham	Additional cooperative	U. S. Dept. of Agr.		State and college	County	Farmers' organizations, etc.
									Clarke-McNary	Norris-Doxey			
Alabama-----	\$2, 093, 165. 96	\$1, 168, 165. 96	\$925, 000. 00	\$151, 596. 66	\$502, 475. 28	\$471, 529. 84	\$37, 220. 03	\$3, 724. 15	-----	\$1, 620. 00	\$465, 000. 00	\$460, 000. 00	-----
Arizona-----	367, 441. 91	187, 423. 91	180, 018. 00	33, 296. 96	61, 113. 21	70, 180. 52	22, 833. 22	-----	-----	-----	146, 062. 96	33, 955. 04	-----
Arkansas-----	1, 519, 864. 23	971, 119. 23	548, 745. 00	118, 683. 61	419, 860. 17	390, 788. 93	33, 217. 36	6, 949. 16	-----	1, 620. 00	365, 450. 00	178, 345. 00	\$4, 950. 00
California-----	2, 807, 982. 46	688, 905. 43	2, 119, 077. 03	153, 609. 36	260, 837. 46	235, 373. 81	37, 464. 80	-----	\$1, 620. 00	-----	1, 328, 027. 03	791, 050. 00	-----
Colorado-----	642, 623. 06	346, 046. 98	296, 576. 08	48, 141. 19	110, 836. 10	133, 775. 39	24, 638. 47	27, 395. 83	1, 260. 00	-----	150, 000. 00	141, 711. 58	4, 864. 50
Connecticut-----	486, 030. 95	170, 336. 75	315, 694. 20	49, 469. 04	57, 650. 95	36, 796. 80	24, 799. 96	-----	1, 620. 00	-----	217, 975. 95	83, 298. 25	14, 420. 00
Delaware-----	129, 813. 81	93, 713. 81	36, 100. 00	19, 101. 13	36, 515. 26	16, 990. 60	21, 106. 82	-----	-----	-----	27, 600. 00	6, 000. 00	2, 500. 00
Florida-----	1, 008, 987. 62	341, 847. 50	667, 140. 12	70, 994. 31	129, 651. 51	112, 163. 96	27, 417. 72	-----	1, 620. 00	-----	355, 581. 12	307, 149. 00	4, 410. 00
Georgia-----	2, 139, 671. 26	1, 215, 786. 26	923, 885. 00	156, 817. 49	511, 293. 31	480, 147. 81	37, 854. 95	26, 432. 70	1, 620. 00	1, 620. 00	477, 050. 00	446, 835. 00	-----
Idaho-----	568, 316. 11	270, 190. 40	298, 125. 71	34, 936. 02	92, 773. 63	113, 122. 69	23, 032. 55	3, 445. 51	1, 620. 00	1, 260. 00	195, 125. 71	103, 000. 00	-----
Illinois-----	2, 306, 559. 37	927, 004. 75	1, 379, 554. 62	159, 515. 89	371, 653. 23	343, 675. 62	38, 183. 11	10, 736. 90	1, 620. 00	1, 620. 00	533, 180. 00	12, 000. 00	834, 374. 62
Indiana-----	1, 801, 913. 98	755, 240. 98	1, 046, 673. 00	120, 302. 76	313, 278. 64	286, 625. 31	33, 414. 27	-----	1, 620. 00	-----	574, 518. 00	472, 155. 00	-----
Iowa-----	2, 161, 293. 39	859, 230. 40	1, 302, 062. 99	114, 139. 96	354, 375. 33	326, 789. 68	32, 664. 80	28, 020. 63	1, 620. 00	1, 620. 00	419, 293. 55	344, 219. 44	538, 550. 00
Kansas-----	1, 857, 936. 41	617, 081. 92	1, 240, 854. 49	84, 993. 69	238, 032. 79	213, 086. 49	29, 120. 22	50, 228. 73	-----	1, 620. 00	140, 500. 00	901, 932. 49	198, 422. 00
Kentucky-----	1, 724, 185. 27	1, 107, 716. 64	616, 468. 63	152, 977. 52	473, 004. 01	442, 727. 15	37, 387. 96	-----	1, 620. 00	-----	361, 756. 00	254, 712. 63	-----
Louisiana-----	1, 823, 495. 74	769, 323. 44	1, 054, 172. 30	109, 083. 79	326, 764. 51	299, 805. 24	32, 049. 90	-----	1, 620. 00	-----	897, 331. 56	152, 808. 74	4, 032. 00
Maine-----	382, 747. 92	224, 545. 85	158, 202. 07	46, 109. 22	83, 322. 64	66, 886. 10	24, 391. 36	2, 216. 53	1, 620. 00	-----	107, 602. 07	17, 000. 00	33, 600. 00
Maryland-----	831, 532. 77	285, 605. 77	545, 927. 00	63, 063. 69	108, 235. 27	86, 233. 56	26, 453. 25	-----	-----	1, 620. 00	397, 992. 00	147, 935. 00	-----
Massachusetts-----	813, 915. 32	192, 918. 90	620, 996. 42	42, 748. 46	72, 883. 76	51, 684. 03	23, 982. 65	-----	1, 620. 00	-----	240, 776. 00	380, 220. 42	-----
Michigan-----	1, 869, 359. 90	816, 497. 90	1, 052, 862. 00	139, 007. 00	332, 829. 40	305, 732. 54	35, 688. 96	-----	1, 620. 00	1, 620. 00	745, 000. 00	307, 862. 00	-----
Minnesota-----	1, 425, 109. 55	815, 538. 02	609, 571. 53	110, 427. 47	348, 555. 43	321, 101. 81	32, 213. 31	-----	1, 620. 00	1, 620. 00	216, 917. 00	358, 654. 53	34, 000. 00
Mississippi-----	2, 079, 450. 07	1, 190, 561. 11	888, 888. 96	135, 402. 66	524, 051. 38	492, 616. 45	35, 250. 62	-----	1, 620. 00	1, 620. 00	438, 500. 00	418, 678. 96	31, 710. 00
Missouri-----	2, 083, 164. 81	999, 222. 54	1, 083, 942. 27	140, 634. 88	424, 282. 66	395, 111. 09	35, 886. 93	1, 686. 98	-----	1, 620. 00	337, 000. 00	576, 076. 42	170, 865. 85
Montana-----	686, 605. 83	276, 839. 87	409, 765. 96	34, 918. 54	83, 243. 96	101, 809. 21	23, 030. 42	32, 217. 74	1, 620. 00	-----	156, 740. 00	253, 025. 96	-----
Nebraska-----	1, 055, 526. 79	519, 693. 70	535, 833. 09	67, 417. 76	198, 975. 81	174, 915. 56	26, 982. 76	49, 781. 81	1, 620. 00	-----	260, 833. 09	275, 000. 00	-----
Nevada-----	227, 578. 21	114, 800. 70	112, 777. 51	14, 795. 47	25, 698. 11	40, 568. 85	20, 583. 19	11, 955. 08	-----	1, 200. 00	56, 138. 66	56, 638. 85	-----
New Hampshire-----	341, 683. 21	121, 553. 07	220, 130. 14	24, 918. 64	45, 320. 00	26, 745. 59	21, 814. 30	1, 134. 54	1, 620. 00	-----	129, 145. 05	90, 985. 09	-----
New Jersey-----	779, 714. 01	222, 874. 31	556, 839. 70	64, 818. 34	71, 390. 79	50, 224. 94	26, 666. 64	8, 153. 60	1, 620. 00	-----	247, 155. 00	309, 684. 70	-----
New Mexico-----	589, 613. 46	250, 234. 46	339, 379. 00	35, 455. 41	84, 068. 40	107, 614. 94	23, 095. 71	-----	-----	-----	239, 299. 00	96, 080. 00	4, 000. 00
New York-----	3, 336, 520. 75	757, 915. 55	2, 578, 605. 20	175, 677. 81	282, 400. 98	256, 448. 15	40, 148. 61	-----	1, 620. 00	1, 620. 00	1, 157, 783. 20	1, 228, 061. 00	192, 761. 00

¹ See footnote at end of table, p. 48.

TABLE 6.—Sources of funds allotted for cooperative extension work in States, Alaska, Hawaii, and Puerto Rico for the fiscal year ending June 30, 1949 ¹—Continued

State	Grand total	Total Federal funds	Total within the States	Funds from Federal sources							Funds from within the States		
				Smith-Lever	Bankhead-Jones, section 21, title II	Bankhead-Jones, section 23, title II	Capper-Ketcham	Additional cooperative	U. S. Dept. of Agr.		State and college	County	Farmers' organizations, etc.
									Clarke-McNary	Norris-Doxey			
North Carolina	\$3, 011, 989.34	\$1, 439, 022.03	\$1, 572, 967.31	\$196, 032.50	\$616, 134.72	\$582, 610.80	\$42, 624.01	-----	\$1, 620.00	-----	\$811, 031.31	\$761, 936.00	-----
North Dakota	695, 206.14	404, 237.14	290, 969.00	46, 527.70	137, 807.12	155, 134.54	24, 442.25	\$38, 705.53	1, 620.00	-----	75, 000.00	215, 969.00	-----
Ohio	1, 808, 140.51	1, 009, 234.51	798, 906.00	174, 344.00	411, 078.06	382, 206.05	39, 986.40	-----	1, 620.00	-----	419, 511.00	374, 520.00	\$4, 875.00
Oklahoma	1, 590, 791.66	880, 871.66	709, 920.00	114, 335.77	354, 232.35	326, 649.95	32, 688.61	51, 344.98	-----	\$1, 620.00	419, 920.00	290, 000.00	-----
Oregon	1, 186, 158.98	318, 239.42	867, 919.56	49, 965.31	112, 951.25	128, 842.55	24, 860.31	-----	1, 620.00	-----	617, 596.76	250, 322.80	-----
Pennsylvania	1, 733, 543.21	967, 574.32	765, 968.89	247, 302.93	348, 623.69	321, 168.52	48, 859.18	-----	1, 620.00	-----	635, 968.89	130, 000.00	-----
Rhode Island	134, 575.67	67, 110.98	67, 464.69	14, 294.63	26, 217.56	6, 076.51	20, 522.28	-----	-----	-----	50, 163.73	14, 450.00	2, 850.96
South Carolina	1, 475, 462.12	821, 842.01	653, 620.11	112, 682.90	349, 274.61	321, 804.68	32, 487.60	2, 352.22	1, 620.00	1, 620.00	580, 350.00	64, 070.11	9, 200.00
South Dakota	632, 166.04	403, 701.95	228, 464.09	44, 727.29	130, 397.99	142, 893.50	24, 223.30	59, 839.87	-----	1, 620.00	136, 100.00	92, 364.09	-----
Tennessee	1, 797, 440.22	1, 109, 397.12	688, 043.10	145, 266.42	478, 227.94	447, 832.57	36, 450.19	-----	1, 620.00	-----	391, 364.24	289, 008.86	7, 670.00
Texas	3, 375, 161.69	1, 949, 246.14	1, 425, 915.55	260, 920.43	795, 775.47	758, 176.21	50, 515.24	82, 238.79	1, 620.00	-----	488, 300.33	921, 925.22	15, 690.00
Utah	447, 587.67	198, 873.67	248, 714.00	27, 534.10	57, 596.34	76, 743.43	22, 432.38	13, 607.42	1, 260.00	-----	171, 150.00	77, 564.00	-----
Vermont	335, 932.27	163, 382.27	172, 550.00	26, 902.05	58, 269.54	49, 401.36	22, 055.51	5, 453.81	1, 300.00	-----	98, 250.00	74, 300.00	-----
Virginia	1, 989, 878.54	893, 146.70	1, 096, 731.84	134, 126.66	374, 361.83	346, 322.77	35, 095.44	-----	1, 620.00	1, 620.00	817, 893.84	278, 838.00	-----
Washington	1, 034, 387.07	398, 818.99	635, 568.08	68, 315.60	142, 282.78	159, 508.66	27, 091.95	-----	1, 620.00	-----	305, 000.00	330, 568.08	-----
West Virginia	928, 190.28	539, 810.28	388, 380.00	107, 955.11	211, 331.54	186, 990.99	31, 912.64	-----	-----	1, 620.00	255, 980.00	125, 350.00	7, 050.00
Wisconsin	1, 716, 636.01	798, 774.59	917, 861.42	114, 455.52	337, 178.24	309, 982.73	32, 703.17	1, 214.93	1, 620.00	1, 620.00	297, 953.00	619, 908.42	-----
Wyoming	479, 563.61	180, 233.20	299, 330.41	21, 256.35	46, 185.03	70, 590.99	21, 368.92	19, 571.91	1, 260.00	-----	201, 656.41	97, 674.00	-----
Alaska	48, 950.00	23, 950.00	25, 000.00	13, 950.00	-----	-----	10, 000.00	-----	-----	-----	25, 000.00	-----	-----
Hawaii	488, 591.27	171, 711.78	316, 879.49	21, 394.87	66, 699.96	45, 640.53	21, 385.77	16, 590.65	-----	-----	316, 879.49	-----	-----
Puerto Rico	880, 000.00	512, 935.19	367, 064.81	103, 315.19	408, 000.00	-----	-----	-----	1, 620.00	-----	367, 064.81	-----	-----
Unallotted	713.00	713.00	-----	-----	-----	150.00	-----	-----	563.00	-----	-----	-----	-----
Total	65, 732, 869.43	30, 530, 763.06	35, 202, 106.37	4, 718, 660.06	12, 408, 000.00	11, 270, 000.00	1, 490, 000.00	555, 000.00	57, 483.00	31, 620.00	18, 867, 466.76	14, 213, 843.68	2, 120, 795.93

¹ Research and marketing funds not included.

TABLE 7.—Number of cooperative extension workers added by 48 States and Hawaii during fiscal years July 1, 1945, to June 30, 1948.¹
(This represents the net additions during the first 3 years that Bankhead-Flannagan funds were available, according to the records of the Washington office.)

State	County agents (white)	Assist-ant county agents (white)	Negro county agents	County home demon- stration agents (white)	Assist-ant county home demon- stration agents (white)	Negro county home demon- stration agents	County 4-H Club agents		Assist-ant county 4-H Club agents	Super- visors (white)	Super- visors (Negro)	Subject- matter special- ists	Total added
							County 4-H Club agents						
							(White)	(Negro)					
EASTERN REGION													
Connecticut		3			3				1	3		3	13
Delaware		1				1	-1		1	-1		5	6
Maine				-1			5						6
Maryland		5	4	-2	7					3		1	18
Massachusetts		8		1	3		1		-3	-1		5	14
New Hampshire		5			-1							-3	1
New Jersey		6		2	1		2		2	1		2	16
New York		34		3	17		7		18	2		24	105
Pennsylvania		18		1	6					2		5	32
Rhode Island					1				1			1	3
Vermont							1			-1		1	3
West Virginia	4	8		2		4	3	4	-1	1	1	-4	24
Region total	4	88	4	10	40	5	18	4	19	9	1	39	241
SOUTHERN REGION													
Alabama		22			5	-4				-1	2	-10	14
Arkansas	2	28	7	1	8	9				1	2	2	60
Florida	2	20	1	4	4	1			1	-1	-1	-1	30
Georgia	19	21	11	16	15	3				5	1	11	102
Kentucky	6	31	2	31	-3	3				3		4	77
Louisiana		33	5	1	14	11				1		3	68
Mississippi		-1	5	3	22	16				3	3	4	55
North Carolina		63	9	4	28	25				2	3	7	141
Oklahoma	2	39	3		14	5				1		13	77
South Carolina		30	12	2	22	12				3	1	8	90
Tennessee	1	44	2	9	18	4				-2		14	90
Texas	12	57	-3	-10	11	3				4		19	93
Virginia		7	4	7	10	14				2		1	45
Region total	44	394	58	68	168	102			1	21	11	75	942

¹ See footnotes at end of table, p. 50.

TABLE 7.—Number of cooperative extension workers added by 48 States and Hawaii during fiscal years July 1, 1945, to June 30, 1948.¹ (This represents the net additions during the first 3 years that Bankhead-Flannagan funds were available, according to the records of the Washington office.)—Continued

State	County agents (white)	Assist-ant county agents (white)	Negro county agents	County home demon-stration agents (white)	Assist-ant county home demon-stration agents (white)	Negro county home demon-stration agents	County 4-H Club agents		Assist-ant county 4-H Club agents	Super-visors (white)	Super-visors (Negro)	Subject-matter special-ists	Total added
							County 4-H Club agents						
							(White)	(Negro)					
NORTH CENTRAL REGION													
Illinois	1	-6	-	16	11	-	48	-	12	3	-	5	90
Indiana	-	26	-	7	3	-	4	-	-	-3	-	6	43
Iowa	4	1	-	-7	2 32	-	2 85	-	2 5	6	-	-5	121
Kansas	9	10	-	18	11	-	5	-	-	2	-	2	57
Michigan	2	10	-	20	4	-	24	-	-	4	-	14	78
Minnesota	1	4	-	12	4	-	2 43	-	2 42	2	-	2	110
Missouri	10	70	-	13	26	4	-	1	-	6	-	12	142
Nebraska	8	8	-	9	-1	-	-	-	-	-	-	-	24
North Dakota	7	15	-	8	1	-	-	-	-	2	-	1	34
Ohio	4	38	-	15	-	-	-2	-	-	5	-	-5	55
South Dakota	9	1	-	7	-1	-	-2	-	-1	5	-	7	25
Wisconsin	5	20	-	13	-	-	19	-	1	3	-	7	68
Region total	60	197	-	131	90	4	224	1	59	35	-	46	847
WESTERN REGION													
Arizona	-	5	-	1	2	-	-	-	-	1	-	1	10
California	5	79	-	8	22	-	-	-	-	3	-	7	124
Colorado	3	3	-	7	2	-	15	-	1	2	-	5	38
Idaho	9	-	-	11	-	-	9	-	-	3	-	5	37
Montana	10	2	-	5	2	-	-	-	-	5	-	7	31
Nevada	-1	4	-	3	-	-	-	-	-	1	-	1	8
New Mexico	3	17	-	7	6	-	-	-	-	3	-	2	38
Oregon	2	16	-	10	3	-	7	-	2	6	-	7	53
Utah	3	3	-	16	1	-	-	-	-	1	-	3	27
Washington	3	12	-	11	3	-	-	-	-	3	-	5	37
Wyoming	2	6	-	8	1	-	-	-	-	-	-	6	23
Hawaii	1	7	-	-1	4	-	-1	-	-	5	-	3	18
Region total	40	154	-	86	46	-	30	-	3	33	-	52	444
Grand total	148	833	62	295	344	111	272	5	82	98	12	212	2,474

¹ Alaska and Puerto Rico not included as they were not included in the Bankhead-Flannagan Act.

² Includes part-time agents.